THE COTTON GIN AND OIL MILL

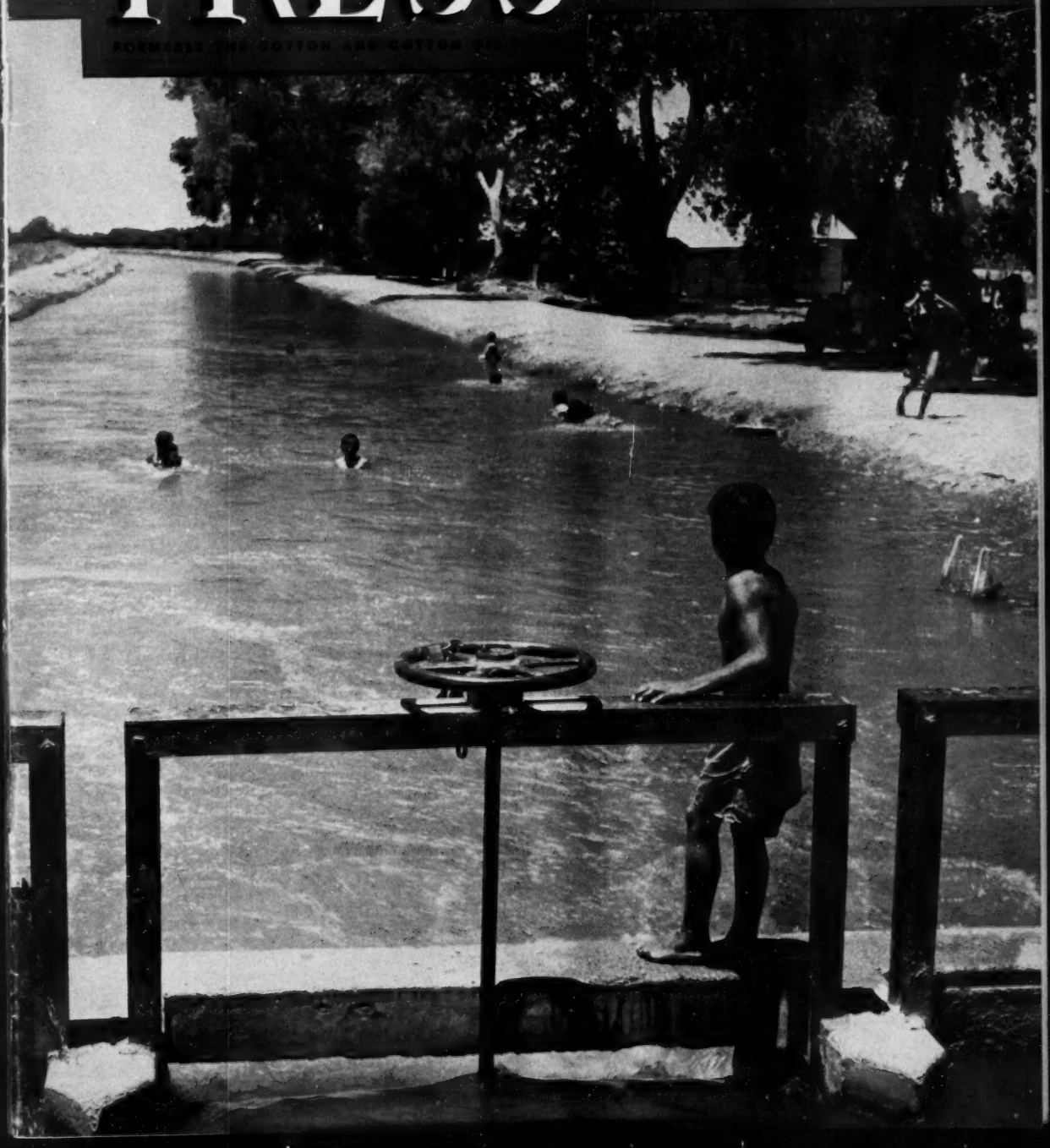
PRESS

AUGUST 4, 1951

52nd YEAR

THE MAGAZINE OF THE COTTON GINNING AND OILSEED PROCESSING INDUSTRIES

FORMERLY THE COTTON AND COTTON OIL



LUMMUS CLEANING AND HULL EXTRACTING GROUPS

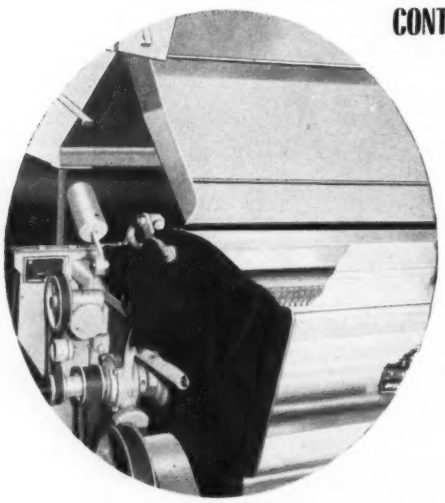
Where maximum cleaning is required, the Lummus Unit Groups are ideal. By-pass arrangement allows greatest possible flexibility. Hot Air Cleaner provides good distribution to Hull Separator. Hull Separators come 10′ with five cylinders; 14′ with six cylinders —and cause no mechanical damage to fibres. Can be grouped with or without after-cleaner. Shown at right, the 14′ "Great Western" group. Write for Bulletin 632.

Bulletin No. 631 covers "Dixie Belle" 10′ group.

LUMMUS COTTON GIN CO.

Lummus is doing more to put gins on a better paying basis.

DALLAS, TEXAS COLUMBUS, GEORGIA MEMPHIS, TENNESSEE



CONTINENTAL'S IMPROVED ROLL DENSITY INDICATOR and AUTOMATIC CONTROL

- Tells at a glance the exact density within the roll.
- Automatically controls the feed of cotton into the gins.
- Automatically stops the flow of cotton through the Extractor-Feeder when gin breast is moved to the non-ginning position.
- Saves the ginner time and labor.
- Improves grade and increases output.

Write for Bulletin 179-A giving complete description.

CONTINENTAL GIN COMPANY

BIRMINGHAM, ALABAMA

Atlanta • *Dallas* • *Memphis*

Entered as second-class matter February 4, 1905, at the Post Office at Dallas, Texas, Under Act of Congress of March 3, 1897

Why it pays to standardize on the Link-Belt BULK-FLO . . . .

The BULK-FLO feeds . . . conveys . . . elevates, providing more profitable handling of hundreds of materials

Difficult-to-handle bulk materials are moved safely and economically with the Bulk-Flo. The Bulk-Flo, most versatile type of conveying medium on the market, serves as a feeder, conveyor and elevator under one drive. The same unit can combine horizontal, vertical and inclined paths, often replacing several units, in less space and at lower cost. Multiple feed and discharge points are practicable. It is completely enclosed—dust tight.

Operating independent of internal pressure, the Bulk-Flo, *with solid flights*, need not be operated at full capacity to provide positive movement of materials. Regardless of the amount of feed, it is self-clearing.

Bulk-Flo provides gentler handling. Because of its solid flights, there are no annoying updrafts of air. Avalanching is eliminated. Variable speed drives are not necessary, because the capacity can be varied by regulating the feed.

You can be sure, when our specialists recommend Bulk-Flo to your engineers or designing contractor, that it is the *right* conveying system for your needs, because Link-Belt makes *all types* of feeding, conveying and elevating machinery—the only complete line on the market today. For all the facts, write for Book 2175.

Full or partially loaded, Link-Belt Bulk-Flo with solid flights provides positive, gentle material handling.

Oil Mill Products handling is easier and safer with BULK-FLO

- Minimum degradation.
- Dust-tight construction.
- Can be furnished vapor-tight and liquid-tight to handle volatile materials. Permits use in a hazardous area.
- Chain and casings can be built of corrosion-resisting materials.

LINK-BELT

BULK-FLO
FEEDERS - CONVEYORS - ELEVATORS

Standard combined-run, L-path arrangement Bulk-Flo with single feed opening and front-discharge head section. Side discharge head section may also be used.

LINK-BELT COMPANY: Atlanta, Dallas 1, New Orleans 12, St. Louis 1, Charlotte 2, N. C., Baltimore 18, Birmingham 3, Houston 1, Jacksonville 2.

12,302-B

Southern Cooks *prefer...*

FAMED throughout the nation as fine cooks, more Southern homemakers continue to choose Swift's Jewel shortening for better baking and frying.

Careful and scientific blending of choice ingredients to meet the rigid standards of Swift's laboratories results in a product of outstanding performance.

It's easy to understand why Jewel is a favorite in the South.

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SWIFT & COMPANY

THE COTTON GIN AND OIL MILL

PRESS

52nd YEAR

THE MAGAZINE OF THE COTTON GINNING AND OILSEED PROCESSING INDUSTRIES

Volume 52 **August 4, 1951** **Number 16**

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California Cotton Ginners' Association
The Carolinas Ginners' Association
Georgia Cotton Ginners' Association
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Tennessee Cotton Ginners' Association
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The Cotton Gin and Oil Mill Press *is the Official Magazine of the foregoing associations for official communications and news releases, but the associations are in no way responsible for the editorial expressions or policies contained herein.*

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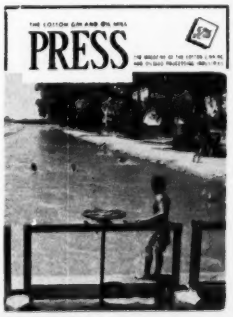
The Cover

In these hot summer days irrigation canals are useful for something besides carrying water from a river to thirsty fields, as the picture on the cover shows. Arizona children find that the big ditch makes a good substitute for the "ole swimmin' hole."

Photo by A. Devaney



A PROGRESSIVE AND RESPONSIBLE PUBLICATION
READ BY COTTON GINNERS, COTTONSEED CRUSHERS AND OTHER OILSEED PROCESSORS FROM CALIFORNIA TO THE CAROLINAS

Why

ARE MORE AND MORE COTTONSEED OIL MILLERS INSTALLING EXSOLEX?

● The reason more and more cottonseed oil millers are installing EXSOLEX is that this equipment is so highly efficient in extracting oil from cottonseed and other oleaginous materials. EXSOLEX as applied to cottonseed has shown amazing extraction results . . . residual oil in the meal has been less than one-half of 1% . . . .3% in one instance and .33% in another! . . . and it's a higher quality oil than hydraulic press oil. Compare these results with that of *any* other equipment. Take your own oil mill production and translate these percentages into additional oil. Is it any wonder EXSOLEX represents *greater profits* for the cottonseed oil miller? More than 20 oil mills have already installed or contracted for Exsolex equipment. Investigate EXSOLEX. We'll be glad to have a representative call—at no obligation to you.

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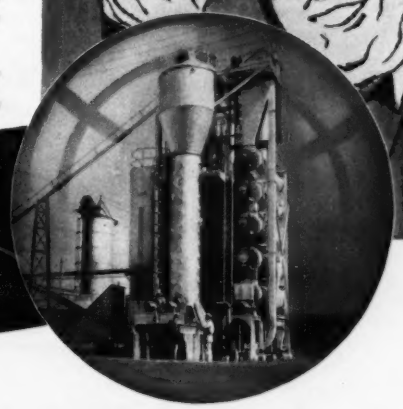
★ COMPLETE AUXILIARY EQUIPMENT



ANDERSON
EXPELLERS • SOLVENT EXTRACTION • EXSOLEX
World's Largest Suppliers of Oil Extraction Equipment

With Esso Hexane uniformity is assured too!

INDUSTRIAL USERS know they're assured of a pure, dependable solvent when they use Esso Hexane. Exacting modern refining gives Esso Hexane a narrow boiling range and closely controlled uniformity.

IN SOYBEAN and COTTON SEED MILLS using the solvent extraction method... Esso Hexane is highly satisfactory in producing high oil recovery and low solvent losses.

You get all 6 of these important features with Esso Hexane

1. **UNIFORMITY** — made in modern refineries from carefully selected crude oil sources.
2. **HIGH OIL RECOVERY** — results from "balanced solvency." Recovered oil has good color and refining properties.
3. **EFFICIENT SOLVENT RECOVERY** — narrow boiling range allows complete removal from extracted oil and meal.
4. **PURITY** — high purity helps prevent non-recoverable residues. Low non-volatile content (specification limits non-volatile content to 28 parts per million maximum).
5. **MODERN HANDLING METHODS** — separate tank storage, pumping lines, tank cars and trucks, are used in all Esso Solvent handling operations.
6. **MULTI-STORAGE AVAILABILITY** — Water terminals in industrial centers.

Esso Solvents: versatility and dependability with controlled high quality.

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Petroleum Solvents

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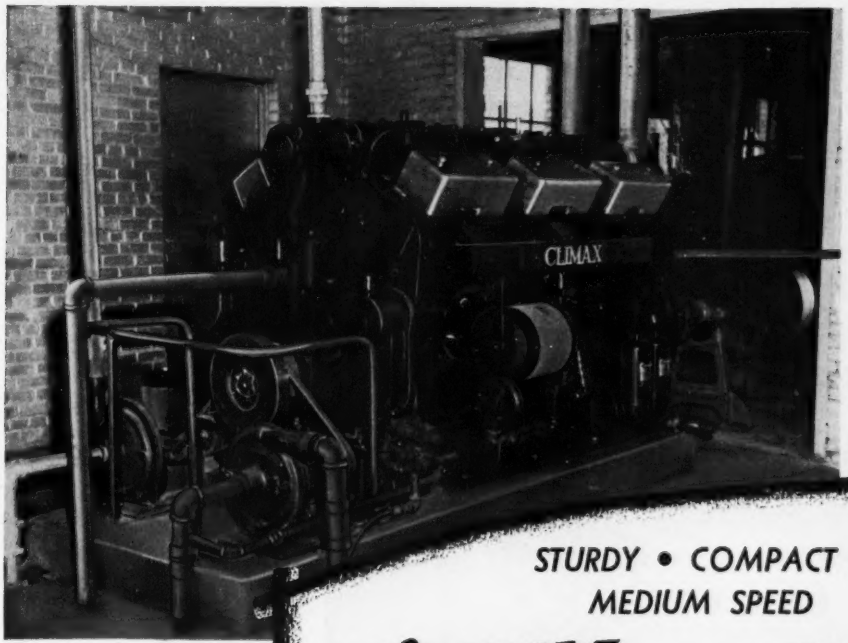

Climax V-120, 460 H.P. Cotton Gin Power Unit Operated by The Bertig Company, Paragould, Arkansas.

STURDY • COMPACT • MEDIUM SPEED

climax BLUE STREAK COTTON GIN ENGINES

Specially Built Power Units for Cotton Gin Service

THE superior features of the dependable Climax Cotton Gin Power Units include: "Wet" type removable cylinder liners; Renewable, full-precision main and rod bearings — 5 main bearings in the "V-80," 7 main bearings in the "V-120;" Side-by-side rod bearing construction; High compression cylinder heads incorporating Climax high-turbulence combustion chamber; Simplified carburetion and ignition; Box type oil pan; Easy access for maintenance.

Climax Engines operate economically on natural gas or butane, giving a lower cost per bale. That's why so many ginners are specifying "Climax."

For complete information and service records of Climax Ginning Operations address Climax Engine and Pump Mfg. Co., 1700 Commerce Street, Dallas, Texas.

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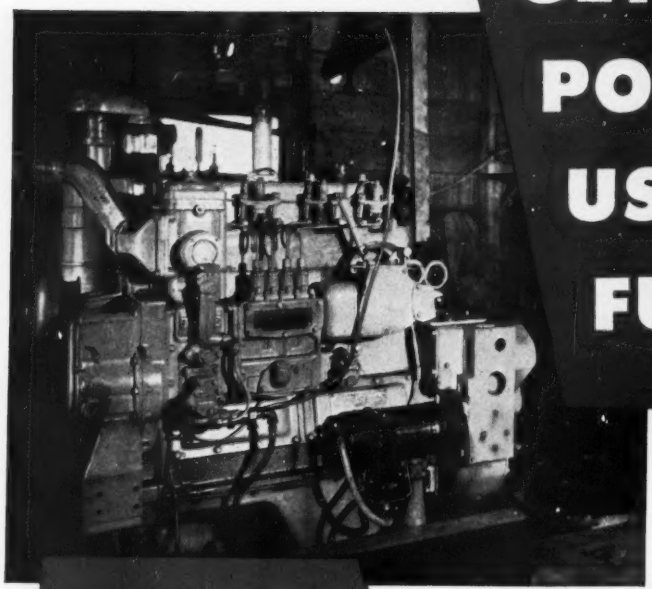


Lubricate Diesels with TEXACO URSA OIL X**

Operators everywhere agree that Diesels lubricated with *Texaco Ursa Oil X*** produce more power at a considerable saving on both fuel consumption and maintenance costs. Here's how this famous oil does it:

*Texaco Ursa Oil X*** cleans as it lubricates . . . keeps out harmful carbon, gum and sludge. Rings stay free, ports stay open and valves work properly for better compression and combustion . . . full, dependable power. Fuel consumption goes down.

*Texaco Ursa Oil X*** also assures full protection against rust whether Diesels are running or idle. All this adds up to longer parts life . . . reduced maintenance costs.

For enclosed gears, use *Texaco Meropa Lubricants.* Their Extreme Pressure properties give extra protection, assure smoother operation, longer gear life and lower costs. They will not foam or thicken in service.

A Texaco Lubrication Engineer will gladly help you bring down costs throughout your mill. Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write The Texas Company, 135 East 42nd Street, New York 17, N. Y.

TEXACO

TEXACO Lubricants, Fuels and Lubrication Engineering Service

Increasing cotton consumption through sales promotion is only part of

WHAT THE COUNCIL DOES FOR THE GINNER

Every person in every branch of the cotton industry benefits from the work of the National Cotton Council, which exists solely to lower production costs and increase consumption of cotton. Its president, a ginner himself, here points out that the ginner is the foundation of the Council's finance program.

By HAROLD A. YOUNG
President, National Cotton Council

LAST YEAR rugs consumed an estimated 253,220 bales of cotton, a gain of more than 60,000 bales over the previous year and 70,000 bales more than 1948. In 1948 women's dresses accounted for about 169,000 bales of cotton. Consumption jumped to almost 216,000 in 1949, and in 1950 a 17,000-bale gain hiked the total to 233,000 bales.

In these two markets alone a gain of about 134,000 bales has been achieved since 1948. I'm citing these two instances because they fit into a pattern—a picture in which an industry is utilizing the tools of research and promotion to build and maintain its markets. Such effectiveness is possible only through unity. The National Cotton Council provides that unity for the cotton industry.

In women's wear cotton now dominates the field. It is the most popular fabric in all lines ranging from popular price frocks to high fashion creations by leading designers. It is a round-the-clock, all-season material with a versatility unmatched by any competitor.

Cotton has achieved this dominance through constant improvement in quality and through an aggressive and intelligently directed sales effort which continually keeps it foremost in the desires of the consumer.

The National Cotton Council since its founding in 1938 has led the way in concentrating international attention on cotton's fashion importance, gaining an acceptance and preference for its products that cannot be matched by any competitor.

A single outstanding example of such promotion is the annual tour of the Maid of Cotton in which she exhibits her fabulous cotton wardrobe in leading American and foreign cities. This one event brings cotton styles to the front pages of newspapers, to national radio and television networks and to the pages of fashion and consumer magazines, obtaining unparalleled publicity for cotton.

To further dramatize cotton's fashion importance, the Council sponsors traveling exhibits of cotton textiles and wardrobes for use in style shows before women's clubs, home demonstration groups, schools, etc. Full instructions for putting on fashion shows and club programs about cotton are included.

Newspapers and radio stations, through regularly scheduled Council services, are continually provided with material describing the latest in cotton fashions. Mats and pictures of the new cotton creations of leading designers are made available. Specialized stories are prepared for magazines and newspaper syndicates.

Council advertisements in leading merchandising trade publications point out cotton's quality advantages, its versatility, and why it is the preference of consumers. These ads are supplemented with sales training material for department stores and other outlets throughout the country, providing up-to-the-minute facts about cotton fashions for the education of sales personnel.

During National Cotton Week special merchandising kits containing suggested newspaper advertisements, plans for window displays, posters and placards, are distributed to retailers by the Council. Store promotions throughout the year are backed by Council carcards advertising cottons in transit systems throughout the country.

Prior to its campaign in 1950 promoting cotton rugs, the Council's market research division made a survey of the floor covering industry, studying the size of the market, consumer preferences, needed quality improvements and promotion possibilities.

Sales opportunities in cotton rugs then were pointed up through a series of advertisements in retail trade papers. Retailers were provided with a plan book containing six specific suggestions for retail promotion with advertising and display ideas to carry out each suggestion. Articles accenting the trend to cotton floor coverings were placed in the leading trade publications and in home furnishing sections of consumer magazines.

The Council's latest rug merchandising booklet urges retailers to promote cotton rugs in every room in the home, particularly suggesting sales themes for the months preceding and including the December gift season. It contains newspaper layouts, advertising copy, artwork, display plans, radio copy and other merchandising ideas.

Sales efforts such as these we have described have been effective in bringing about a seven percent increase in 1950 in the consumption of cotton in major

apparel uses. They have helped boost cotton in household uses almost 15 percent and total domestic consumption about 25 percent. In the women's wear field alone, use of cotton has been increased more than 25 percent.

It doesn't require any great amount of economic reasoning to figure out that sales of dresses, cotton rugs, shirts or other cotton products have a direct effect on the prosperity of the cotton

HAROLD A. YOUNG
President, National Cotton Council.

farmer, ginner and everyone else whose livelihood depends on cotton.

Cotton is not really sold until the customer buys the finished product at the store counter. As consumers demand more cotton products, more bales of cotton are needed to meet their requirements—cotton which must be produced on the farm, ginned, marketed, spun into yarn, woven into textiles, manufactured into finished goods and distributed to the retailer.

Sales promotion is only one of several fields in which the National Cotton Council is moving effectively to preserve and expand cotton's prosperity. It also is working to: lower production, marketing and processing costs; increase income; improve cotton quality; hold foreign markets; and provide legislative protection.

Samples of Council programs to lower costs and increase income are its efforts in behalf of cotton insect control, mechanization of production, fire prevention, cotton breeding and quality improvements.

Complete control of cotton insects alone would lower cotton production costs by at least six cents a pound. Machines could reduce labor costs by at least two-thirds. Elimination of fire damage would mean $12 to $20 million in savings annually to the cotton industry. Greater strength and luster in cotton through development of more promising varieties would enable cotton to compete more effectively in markets involving three and a half million bales annually.

In leading the fight for adequate cotton research funds, the National Cotton Council is furthering activity which already has paid off in improved quality of cotton products, creating new cotton markets in major uses. A continuing survey of cotton's competitive position in all its principal uses is being maintained. Needed improvements are determined. Use of this information serves constantly to direct sales research effort to markets where need and opportunity are greatest.

In the field of foreign trade the Council has helped build and maintain foreign markets by: (1) promoting foreign cotton shipments under the Marshall Plan; (2) working to keep foreign trade in established channels; (3) conducting surveys in cotton producing countries abroad to provide the industry with information in long-range planning of the battle for foreign markets.

During the first quarter of this year, for the first time in history, margarine sales are running at the rate of more than a billion pounds a year. A Council-led fight resulted in repeal of federal legislation discriminating against margarine—one of the largest markets for cottonseed oil. Other examples of Council legislative activity are the exemption of the farmer from both the minimum wage and overtime requirements of the Wage-Hour Act, and its work with government to secure allocations of materials needed to produce and market a crop.

This program in behalf of cotton, cottonseed and their products looms ever more important as our competitors step up their efforts to capture our markets. Rayon production has grown until it is equivalent to almost three million bales of cotton per year. Paper is being used in products which otherwise would consume two million bales of textile fibers.

In 1951, for the first time, orlon suits for men appeared in retail stores. Manufacturers are hailing "wrinkle-proof" suits of "Dacron" as a modern miracle in the menswear field. Nylon, saran, vicara, soylon and a host of other new fibers are fighting for larger portions of the textile market. These competitors are spending millions of dollars to improve the quality of their products, lower production costs and for sales programs to win customers. They already have gained markets which are equivalent to 4,500,000 bales of cotton.

How cotton meets these challenges to its markets is dependent on the cotton industry itself. It can use the same tools and methods as its competitors to win back lost markets, strengthen existing ones, and expand tremendously the consumption of lint and seed products. But the job is of such scope that it can be accomplished by no one farmer, ginner or any one segment of the cotton industry.

The cotton industry can expand its markets and increase its income only through unified action. That is the reason for the existence of the National Cotton Council.

Cotton growers, ginners, warehousemen, merchants, spinners and cottonseed crushers make up the National Cotton Council. Each contributes in proportion to his income from a bale of cotton. The farmer pays 10 cents per bale at the time of ginning. The ginner serves as the producer's collection agency and remits to the Council the farmer's contribution.

The warehouseman and compress operator contribute one-half cent on each bale shipped; the merchant, two cents on each bale handled on a merchandising basis and one-half cent on each bale consumed at the mill; and the crusher, five cents on each ton of seed crushed.

The ginner is the very foundation of the Cotton Council's entire finance program and without his support it would collapse. Upon the ginner falls the job of enlisting producers in this effort for cotton, thus enrolling the largest segment of the cotton industry.

Field representatives of the National Cotton Council are now in the midst of their annual finance campaign, seeking to obtain agreements from ginners to take part in the Council program by collecting 10 cents a bale from their customers at the time cotton is ginned.

Realizing that the ginner is too busy at this time of the year to explain the Council's program to his customer, the Council is doing everything possible to make this job easier. Gins are being supplied with an attractive leaflet to hand out to farmers. This describes in detail the job the Council is doing, how it is organized and financed. Posters supplementing this booklet also are available, as are kits containing news stories, editorials and radio material on the National Cotton Council's purposes, accomplishments and objectives. All these are free for the asking. They may be obtained from field representatives of the Council or by writing the National Cotton Council, Box 18, Memphis 1, Tenn.

I've said before that the ginner is the foundation of the Council's finance program, and without this support our organization could not continue to work to increase and maintain cotton's markets. Without it our accomplishments in the past would not have been possible.

A ginner's signature on an agreement to participate in the Council's finance plan is solid evidence of his interest in cotton's future prosperity. For your future and for cotton's future —we urge you to support the National Cotton Council.

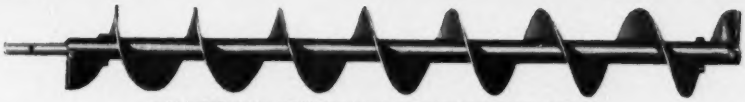
At Last—New Yorkers See Cotton Stalk

Someone had to pull strings all the way to Washington . . . but New Yorkers finally got to see a stalk of cotton, even if it was sealed in an air-tight container and destroyed after it was exhibited on the floor of the New York Cotton Exchange.

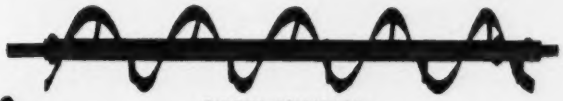
The Texas-sized plant, loaded with 156 well-formed bolls and judged biggest and best grown in the Lower Rio Grande Valley this year in a contest sponsored by the Hidalgo County Bank and Trust Co. at Mercedes, measured five and one-half feet tall and 46 inches in diameter after it was stripped of its leaves. It was raised by Francisco Barron of Pharr.

Banker N. P. Barton, Jr., wanted to send it to the New York Exchange, where he said he understood it would be the first cotton plant ever displayed, but quarantine red tape barred the way. After a lot of string-pulling, the bank secured permission to fly the plant to New York on condition the stalk would be sealed in an air-tight container and would be destroyed after it was exhibited.

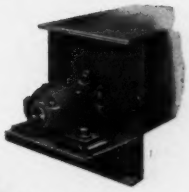
Continental SCREW CONVEYORS



HELICOID AND SECTIONAL FLIGHT SCREW CONVEYOR

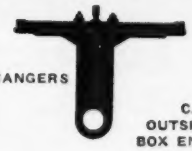


RIBBON CONVEYOR

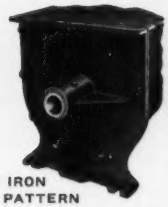


FABRICATED STEEL BOX END WITH CONTINENTAL SKF PILLOW BLOCK, AND SPLIT DUST SEAL GLAND

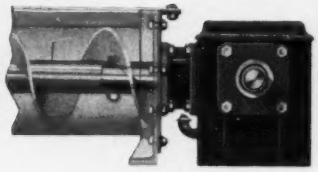
COUPLINGS



HANGERS



CAST IRON OUTSIDE PATTERN BOX END WITH FEET

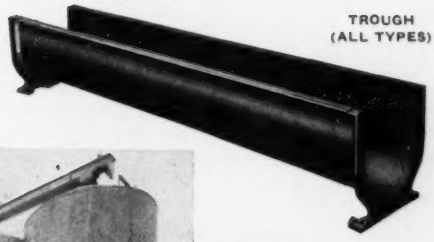


ENCLOSED COUNTERSHAFT BOX ENDS

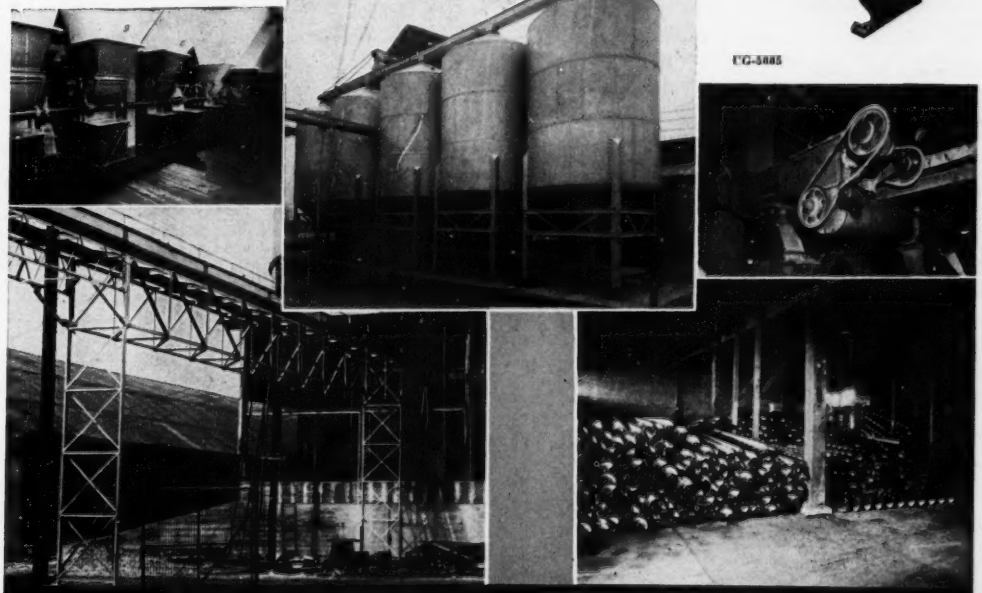
Continental Screw Conveyors are manufactured in all types, and are favorably known throughout the trade. Standard Parts can be shipped from stock.

When complete installations are required consult Continental Engineers. We also manufacture conveyors for special applications.

Send us your orders.

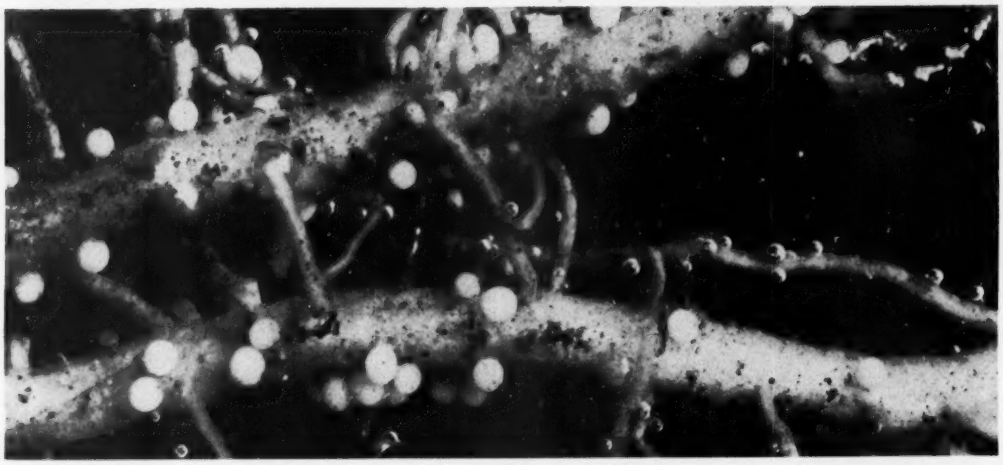


TROUGH (ALL TYPES)



CG-5885

Industrial Division **CONTINENTAL GIN COMPANY** Birmingham, Alabama



NEMATODES—wire worms—are shown here attached to the underground stem of a potato plant. They are thought to cause millions of dollars of damage to cotton and other crops of the South where they flourish due to the comparatively mild weather.

SCIENCE AT WORK FOR AGRICULTURE

The Beltsville Story

■ COTTON, as well as other food and fiber crops in the U.S., stands to benefit enormously from research on methods of controlling these little known underground pests, the nematodes.

SCIENTISTS estimate that nematodes — more commonly known as wire worms or eel worms—will add some $300,000,000 to America's food and clothing bills this year.

Until recently science hadn't paid much attention to the nematode. But now it is recognized as the villain responsible for thousands of once mysterious crop failures.

The citrus nematode brings declining yields and lingering death to orange, lemon and grapefruit groves, forcing growers to replant trees after 14 or 15 years. Cotton, corn, peanuts and tobacco are victims of the nematode.

SCIENTISTS such as the woman pictured here study the habits and make-up of the nematode to find new and better ways of bringing it under control. The various types of nematodes in the drawings are many times life size. The underground pests are often invisible to the human eye.

Nematodes exist underground by the trillions. However, throughout the world there are less than 20 real specialists in nematology to find out what nematodes are up to.

Among the best nematologists is Dr. Gotthold Steiner, who works at USDA's 12,000-acre experimental farm near Beltsville, Md., 13 miles from the White House. When I called upon Dr. Steiner he pointed at a tiny speck on the stage of his microscope.

"I have just dissected a nematode one-twentieth of an inch long, and what do you suppose I found inside?" he asked in a German-Swiss accent overlaid with enthusiasm. "Another nematode, entire!"

In a 40-year-long association with the nematode, Dr. Steiner has accumulated a vast storehouse of knowledge about the pest's devious behavior.

Dr. Steiner's discoveries of some of the basic facts of nematode life have prompted sharp upward revision in estimates of the damage caused by the pests. Thanks to this fundamental knowledge, and to new methods of nematode control which followed in its wake, the battle against the parasite is being carried to fields, orchards, nurseries, and to home gardens across the country.

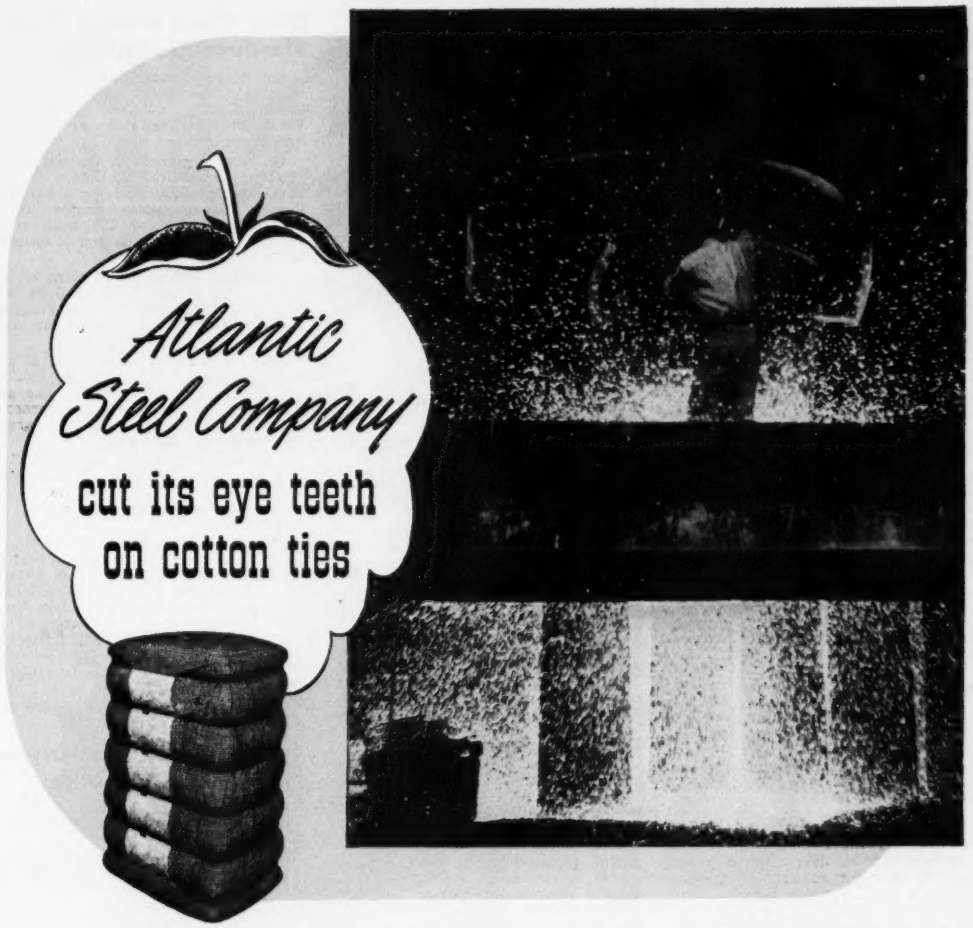
Chemical fumigants which vaporize and spread through the soil are proving the most effective weapon against the nematode.

Large-scale operators are using tractor-drawn machines which eliminate nematodes quickly over a large area. Fumigants are fed into the soil with piston-like efficiency through small piles running down behind narrow plow points.

Such equipment is still too expensive for many growers, but some of these

By Jay Richter

THIRD IN A SERIES



Atlantic Steel Company

cut its eye teeth on cotton ties

COTTON TIES were one of the first two products ever rolled at Atlantic Steel Company.

That was 50 years ago—in 1901—and most of them were used by ginners close by.

Today DIXISTEEL Cotton Ties are used by ginners from the Carolinas to California.

Made strong at the start from our own open hearth special-analysis steel, DIXISTEEL Cotton Ties are rolled to exacting specifications to assure uniform quality, strength, durability and finish.

DIXISTEEL Buckles are made to withstand strain and pull; they won't give way or cut the tie. Scientifically designed, they thread easily, provide firm seating and will not slip up or down.

Specify the ginner's favorite for 50 years—DIXISTEEL Cotton Ties.

Standard bundles weigh approximately 45 pounds and contain 30 ties—each 15/16 inches by approximately 19½ gauge, 11½ feet long. Thirty buckles attached to each bundle. Sixty-pound ties also are made. Both weights available without buckles. Buckles shipped in kegs or carload bulk lots.

50th ANNIVERSARY 1901 1951 ATLANTIC STEEL COMPANY

DIXISTEEL TRADE MARK COTTON TIES AND BUCKLES

ATLANTIC STEEL COMPANY · ATLANTA, GEORGIA

are contracting with firms especially organized to kill nematodes wholesale.

Experiments in Arizona cotton fields found to be infested by the rootknot nematode showed that soil fumigation spelled the difference between a crop and no crop at all.

Dr. Steiner investigated reports that peaches refused to grow on thousands of apparently fertile acres in the South. He set out an experimental orchard at Tifton, Ga., planting nematode-resistant cover crops among the trees, and fumigated the soil. At first fruiting, his yield were more than eight times greater than in surrounding, untreated orchards.

Granted necessary funds and time, Dr. Steiner believes scientists could return to cultivation some 2,000,000 infested acres in the South which now lie idle.

According to Robert M. Salter, chief of USDA's Bureau of Plant Industry, Soils and Agricultural Engineering, the protection of underground parts of plants against nematodes "represents an enormous forward step."

"Tests have shown that nematodes are an important factor in crop production over a much larger area than we suspected," Dr. Salter points out. "Experiments with fumigants in many areas where we have no previous knowledge of nematode infestations have produced yield increases of more than 20 percent."

Although the field of nematode control even now is a big one, the real potential lies in bringing down costs of fumigation.

"Cotton, for example," Dr. Salter says, "is being grown on more than 25 million acres this year, and nematodes are a serious problem over all this area. Experimental evidence indicates that substantial yield increases can be realized from fumigating soil for cotton production, but the practice is not economical at present prices.

"A fumigant that can be applied . . . for $10 an acre would be economical over most of the Cotton Belt. If such chemicals can be developed, they will open the way for substantial increases in food and fiber production."

Anderson, Clayton Absorbs Western Cottonoil Co.

Anderson, Clayton & Co., gin and oil mill operator with headquarters at Houston, Texas, has announced the merger of Western Cottonoil Co., wholly-owned subsidiary, with its parent company, effective Aug. 1.

Under the new set-up Western Cottonoil Co. Division of Anderson, Clayton & Co. will carry on the oil mill, ginning, refining and crop financing business formerly operated by the Southwestern Division of Western Cottonoil Co. in Texas, Oklahoma and New Mexico. Headquarters of this division will be at Abilene, Texas.

San Joaquin Cotton Oil Co. and Western Cotton Products Co., both formerly divisions of Western Cottonoil Co. with headquarters at Los Angeles, Calif., will operate as divisions of Anderson, Clayton and will carry on their operations in California and Arizona, respectively, as they did under the former subsidiary company.

Anderson, Clayton has announced that its policies, management and personnel will be unchanged under the new operating divisions.

USDA Reveals 1951 Cotton Loan Rates

■ Average rate for Middling ⅞ inch upland cotton will be 30.46 cents a pound.

The Production and Marketing Administration last week announced that the average loan rate for Middling ⅞ inch upland cotton, gross weight, produced in 1951 will be 30.46 cents per pound, which is 90 percent of the parity price of cotton as of Aug. 1. (The Aug. 1 parity price was 33.85 cents per pound.) Last year the average loan rate for Middling ⅞ inch cotton, gross weight, was 27.90 cents per pound.

Average rate for Middling 15/16 inch cotton will be 125 points (1.25 cents per pound) above the average rate for Middling ⅞ inch cotton, or 31.71 cents per pound, gross weight.

Premiums and discounts for the various grade and staple length combinations under the 1951 loan program will be calculated in relation to the loan rate on Middling 15/16 inch cotton. This schedule of premiums and discounts was issued on May 16.

Loans rates will vary according to location. The rate for Middling 15/16 inch cotton, gross weight, will vary from a high of 32.55 cents per pound in the concentrated mill area of the Carolinas to a low of 30.97 cents per pound in Arizona and California.

Location differentials for each warehouse point will be based on the frieght rate to the mill area of the Carolinas, except in eastern Tennessee, Virginia, North Carolina, South Carolina, Georgia, Florida and Alabama, where a zone system will be in effect.

Loans will be made on cotton represented by warehouse receipts issued by warehouses approved by Commodity Credit Corporation and on farm-stored cotton (secured by chattel mortages) stored in structures approved by PMA county committees. Cotton producers' notes will bear interest at the rate of three percent per annum and will mature July 31, 1952, but will be callable on demand. Loans will be available through April 30, 1952.

Producer eligibility requirements are defined in Cotton Bulletin I issued by CCC. Loan forms are being made available through approved cotton warehouses, approved lending agencies and PMA county committees.

Loans will be made direct by CCC or through lending agencies, principally banks, approved by CCC. Requests for approval as lending agencies should be directed to the local PMA county committee.

A special form of loan agreement will be available to cotton cooperative marketing associations, whereby the associations may obtain a loan on cotton on which such associations have made loans to their producer-members.

Persons throughout the Cotton Belt will be designated as approved clerks to assist producers in preparation and execution of loan papers. Local PMA county committees will designate the approved clerks in the respective counties and supervise such approved clerks in accordance with instructions issued by PMA state committees.

More Texas District Ginner Meetings Are Scheduled

Six more Texas district ginners meetings have been scheduled by the Texas Cotton Ginners' Association, Executive Vice-President Jay C. Stilley has announced.

On Aug. 9 ginners in District 8 will meet at the Southland Cotton Oil Co. in Temple at 6:30 p.m. for a barbecue dinner and discussion session. C. L. Walker, manager of the mill, is in charge of arrangements and is sponsoring the barbecue.

District 5 ginners will meet at the Hillsboro Country Club at 6:30 p.m. Aug. 13 for dinner and the program. Jim Vaughn is in charge of arrangements.

West District 15 and District 16 ginners will meet together at Lake Pauline, Quanah, at 10 a.m. Aug. 15. The program will be followed by a barbecue. Rex Sullivan and Tom Simmons are in charge of arrangements.

The East District 15 meeting will be held at the Holt Hotel in Wichita Falls at 10 a.m. Aug. 16, with a luncheon to follow. W. C. Smith is in charge of arrangements.

Western Cottonoil Co. Division of Anderson, Clayton & Co. will be host for a joint meeting of ginners in District 23 of Texas and in eastern New Mexico at 10 a.m. Aug. 20 at the Hilton Hotel. Bob Montgomery is in charge of arrangements. Luncheon will follow the meeting.

A meeting for ginners in Districts 17, 18, 19 and 20 will be held Sept. 1 at 10 a.m. at the Lubbock Hotel, Lubbock.

Educational Service Offers New Advertising Mats

To help cottonseed oil millers increase their local sales of cottonseed hulls, meal and cake, the Educational Service of the National Cottonseed Products Association has prepared a set of eight new advertising mats with the theme that it pays to feed cottonseed products.

The mats, which are designed to help crushers move the larger tonnage of cottonseed products which they expect to produce this season, may be obtained for 25 cents each plus shipping costs from the Educational Service, National Cottonseed Products Association, 618 Wilson Building, Dallas 1, Texas.

Quick Action Stops Fire

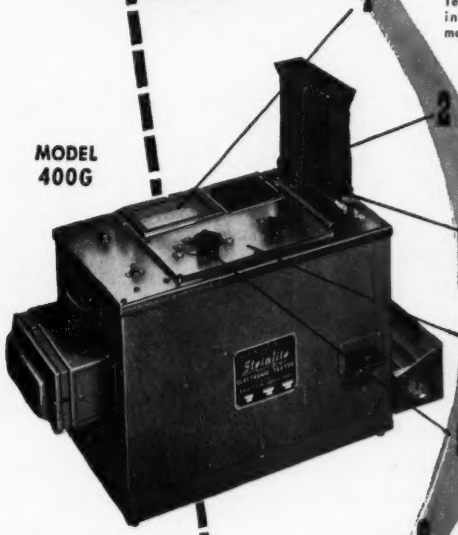
Prompt action by firemen who used chemically treated water brought a fire in the gin stands at the Hargrove gin near Harlingen, Texas, under control quickly July 22. About 400 pounds of cotton were lost.

Mexico, U.S. Sign Labor Treaty

A new migratory labor treaty that will send nearly 300,000 farm laborers to work in U.S. harvest fields this year was signed by Mexico and the U.S. in Mexico City Aug. 2.

13 NEW OPERATING IMPROVEMENTS THAT *Save you time and money*

SEEDBURO *Steinlite* MOISTURE TESTER



MODEL 400G

1. A wider Moisture Range—Tests from 1½% moisture in peanuts, up to 50% moisture in corn.
2. "Memory-refresher" instruction panel on the top enables even inexperienced workers to test grain quickly.
3. Simplified funnel guides let you easily slip the funnel in position.
4. Stainless steel top lasts longer, stays clean.
5. New Dial-type selector switch speeds your meter reading.
6. New stronger frame withstands rough handling.
7. New Charts check with government inspection points, assure the accuracy of your report.
8. New Test Pads are available to check your instrument for electrical accuracy.
9. New Built-in thermometer simplifies temperature readings, saves you time.
10. Larger, easy-to-read charts help you get an accurate moisture analysis faster.
11. An improved dust-proof cabinet keeps your 400G operating accurately longer.
12. New glass meter cover is double strength, protects your meter from accident.
13. New gray crackle finish resists chipping, scarring.

The NEW 400G's faster operation saves you time. The increased accuracy saves you money. The sturdier, trouble-free design saves maintenance.

NEW CATALOG SUPPLEMENT just off our press. Write for your copy.

WRITE TODAY for a complete description, send serial number of your old Steinlite for estimated trade-in value. No obligation, of course.

SEEDBURO EQUIPMENT COMPANY

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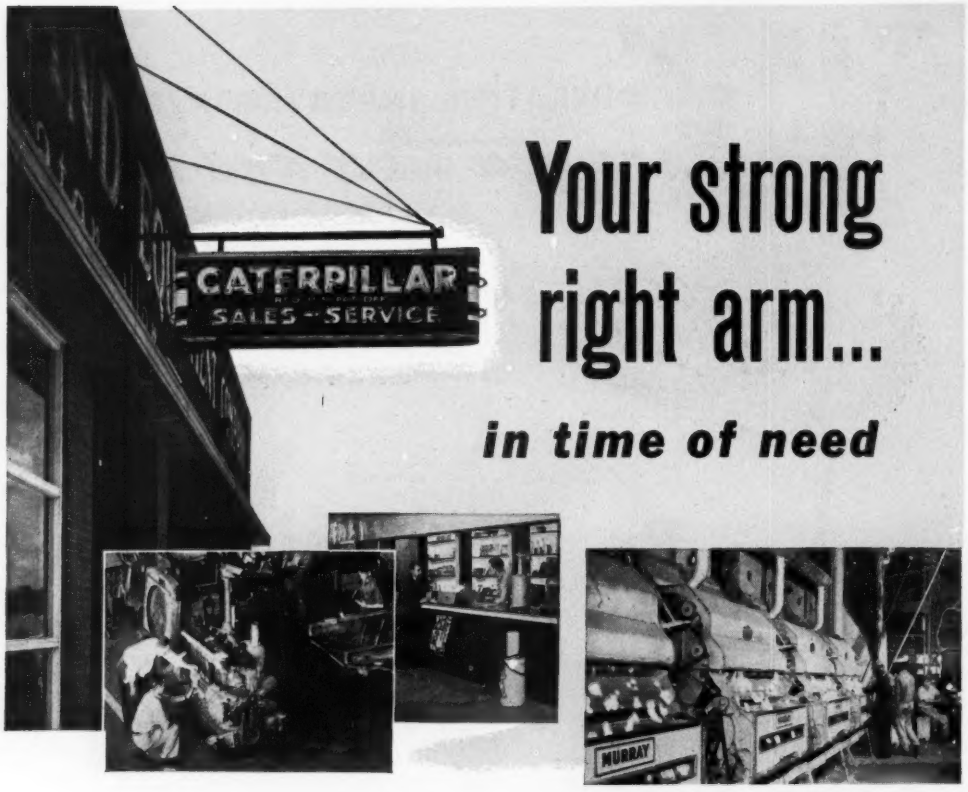
SEEDBURO THE BlueMaster LINE



Your strong right arm...

in time of need

BECAUSE of the vast defense mobilization program, material shortages and extra production demands have gripped the nation. They affect particularly the heavy industries and the distributors and users of their products. And huge as America's facilities have become in recent years, they still are not large enough to keep pace with both military and civilian needs.

Nevertheless, as an owner of "Caterpillar" products, you are among the more fortunate. Your "Cat" equipment has been built for long life and to withstand severe working conditions. What's more, it is backed by a dealer organization that is world-famous for experience, accessibility, mechanical facilities and field service to keep you going "come hell or high water."

Since World War II, the already large number of "Caterpillar" sales-and-service establishments has increased greatly. Also since that time, "Caterpillar" and its dealers have developed new techniques for restoring and extending the life of "Caterpillar" products. Today, in their own shops, "Caterpillar" dealers can *rebuild* a great many worn or damaged parts which formerly required completely new replacement. In short, every dealer is richly acquainted with scores of modern ways and means for keeping your "Cat" Diesel Engines in good working condition. You can help by doing this:

Take your maintenance problems to your "Caterpillar" dealer* BEFORE *parts are worn beyond repair

Remember that excessively worn parts can cause damage to mating parts; that pistons and liners, crankshafts, cylinder heads and other items usually can be salvaged. Your problems are your dealer's problems. Go see him today. He'll do everything in his power to keep your Engines operating. Your combined efforts will be reflected in longer equipment life.

CATERPILLAR, PEORIA, ILLINOIS

CATERPILLAR
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COTTON GIN ENGINES

ARKANSAS

J. A. RIGGS TRACTOR COMPANY
Little Rock . . . Fort Smith
McGhee . . . West Memphis

GEORGIA

YANCEY BROS. CO.
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ILLINOIS

JOHN FABICK TRACTOR CO.
Salem . . . Marion

MISSISSIPPI

STRIBLING BROS. MACHINERY CO.
Jackson . . . Greenwood

MISSOURI

JOHN FABICK TRACTOR CO.
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TEXAS

CENTRAL TEXAS MACHINERY CO.
Abilene

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WEST TEXAS EQUIPMENT CO.
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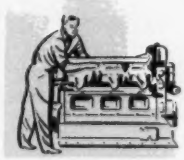
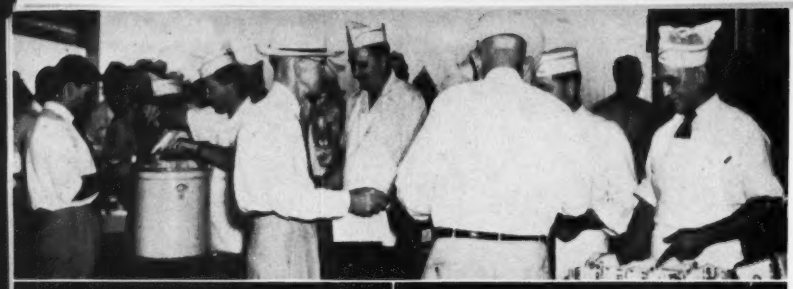
GENUINE "CATERPILLAR" PARTS...

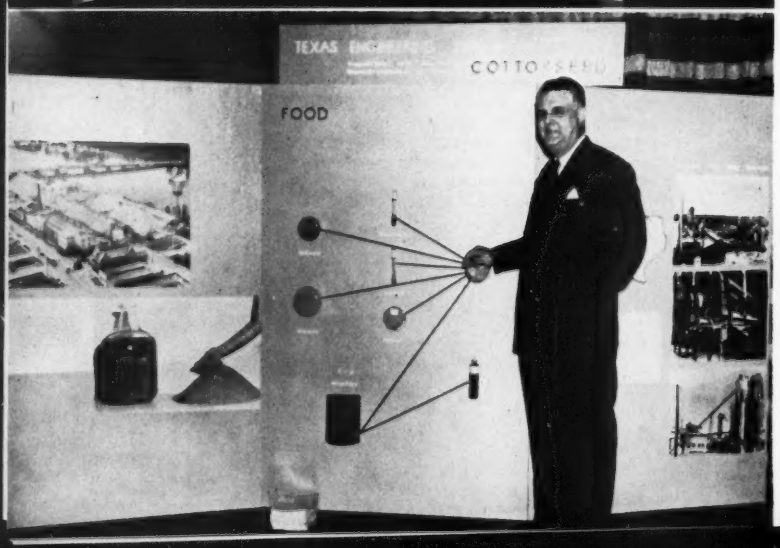
When you deal with your "Caterpillar" Dealer you can count on genuine replacement parts — the very same parts that have made "Caterpillar" engines famous for 20,000, 30,000 and more hours of duty. No parts can replace "Caterpillar" for quality!



TIME-SAVING EXPERT SERVICE...

When minutes mean money — that's the time service by your "Caterpillar" Dealer pays off! His men are factory trained, methods are exact — special, precision tools speed up the job—that's backed by his guarantee. And service keeps pace with your engine 'round the clock!





Research Congress Shows

Cotton Research Is Vital to Defense

■ Industry leaders see research in action during tours. Congress is held at Texas A. & M. to honor college on its seventy-fifth anniversary.

Cotton research is a vital factor in the successful defense of American and world freedom, as well as playing a tremendous role in the economic well-being of ginners, crushers and all branches of the cotton industry, Assistant Secretary of Agriculture Knox T. Hutchinson told the twelfth annual Cotton Research Congress at Texas A. & M. College.

Sponsored by the State-Wide Cotton Committee of Texas, the Congress on July 26-28 brought together research and cotton leaders from a dozen states and five foreign countries.

Tours demonstrating research in action were a major feature of the 1951 meeting. Congress visitors saw varied research projects, including many directly related to cottonseed crushing and ginning.

Solvent extraction of cottonseed was demonstrated at the Cottonseed Products Research Laboratory, where the visitors also saw hydraulic and screw press equipment.

Sesame growing in the field plots demonstrated the drouth resistance of this crop, equal to grain sorghums or cotton, that is an important asset to it as a potential oilseed for production and crushing in cotton states. The National Cottonseed Products Association's Educational Service is cooperating with this research, as it is with nutritional

(Continued on Page 38)

In the Pictures

■ TOP PANEL—A portion of the line at the barbecue given Cotton Research Congress visitors by the Bryan Chamber of Commerce and the Texas Planting Seed Association.

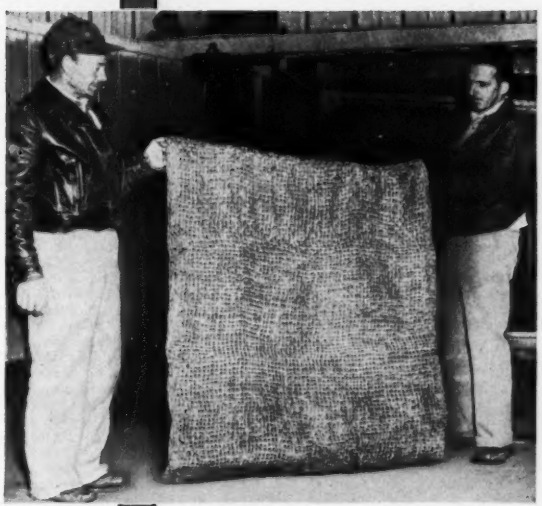
■ SECOND PANEL—Dr. A. M. Altschul, left, Southern Regional Research Laboratory, New Orleans, La., and Assistant Secretary of Agriculture Knox T. Hutchinson, Washington, D. C., were among the speakers at the Congress sessions.

■ THIRD PANEL—Pictured in a serious discussion at the Congress are, l. to r., Dr. Carl M. Lyman, head of the Department of Biochemistry and Nutrition at Texas A. & M. College, where the Congress was held; A. L. Ward, Educational Service director, National Cottonseed Products Association, Dallas; Dr. Altschul; and Dr. Russell Couch, professor of biochemistry and nutrition at Texas A. & M. Dr. Lyman and Dr. Couch are carrying on research with cottonseed products.

■ BOTTOM PANEL—Burris C. Jackson, Hillsboro, general chairman of the State-Wide Cotton Committee of Texas, which sponsors the Congress, is shown with a chart exhibited at the sessions.

AMCO
TWO POUND STANDARD
BAGGING

Quality Plus



The Use of AMCO Bagging Assures Your Cotton Bale Full Protection. You Will Be Proud of Cotton Bales Wrapped with AMCO. It Stands Up Under All Sorts of Rough Handling.

In AMCO The "Plus" Means

- TOP QUALITY
- FULL WEIGHT
- FULL YARDAGE
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NOBLE & WEST STREETS BROOKLYN 22, NEW YORK

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BRANCH SALES OFFICE
1006 WASHINGTON AVE.
HOUSTON 1, TEXAS

Large Crop and Short Labor Supply Make

HARVESTING and HANDLING Seed Cotton

More Important Than Ever This Year

By Jack F. Criswell

Educational Specialist, Production and Marketing Division, National Cotton Council

THE JULY 9 crop indicated cotton planted this year to the extent of 29,510,000 acres. Some of this, we know, will be abandoned; however, an abandonment of five percent, which is three percent higher than normal, would leave an acreage to be harvested far greater than any year in recent cotton production history.

What does this have to do with the subject of harvesting and handling seed cotton? Simply this—with a predicted cotton crop 50 to 60 percent larger than last year, and farm labor availability at the lowest level in history, every conceivable method and means of harvesting will surely be employed during the coming season. Rough harvesting, long recognized as a serious and growing problem, undoubtedly will be practiced in all areas. The rough harvesting to which we refer will not, we fear, be limited to machines and machine-harvested areas, but most probably will be noticeable wherever migratory or transient labor is employed.

Recently I visited a gin where $65,000 worth of new equipment was being *added*. A few years ago, this amount would have completely built the most modern gin available. This plant, completed, will represent an investment of about $150,000. All of the difference between the two figures cited is not covered by inflation or price changes. A good part of the increased investment is caused by addition of equipment needed to meet increased *requirements*. One might hastily conclude from such a statement that equipment is not as efficient now as in former years, or that ginners do not know how to operate the modern equipment as efficiently as formerly. Both assumptions are false. Machinery is far more efficient, better made and engineered to a precision undreamed of 20 years ago. Today ginners know far more about mechanics and gin operation than was known even a generation ago.

Why Rough Harvesting?

The answer to the difference in gin machinery requirements is simply that the seed cotton comes to the gin in a rougher condition than has been the case in the past. According to USDA figures, in 1930, 62 precent of the cotton crop was middling and better; whereas in 1950 only 38 percent of the crop graded middling, even with improved machinery and better varieties. As one ginner explained, "The better we get prepared to handle the seed cotton, the less interest the farmer seems to take in the condition of the cotton he delivers." This, of course, is one reason for increased machinery requirements, and one that is not unfounded; however, several other factors enter the picture of rough harvested seed cotton.

Ginning is a highly competitive business. When one gin installs additional cleaners, driers, seed scales or other modern day machinery, neighboring gins not installing such equipment often see their business slip away to the gin that is better equipped. This fact alone keeps ginners alert, insuring good gin equipment, and in most cases means additional returns to the farmer. One can hardly blame the farmer who takes his cotton to a gin plant best equipped to cope with present day conditions.

A second and mighty important factor in rough harvested cottons is the labor situation—both supply and type. The degree of roughness present today in hand-harvested cotton has increased proportionately to the transient labor trends. Few farmers nowadays have sufficient farm labor to harvest their crop; therefore, they must depend on migratory labor and machines for the bulk of their harvesting labor needs. Transients normally work in crews, and in such semi-organized groups the farmer has little chance to demand the type of picking desired, lest he find himself with no pickers at all.

Most of these crews have no interest beyond the money they can earn; therefore, they seek every weight advantage possible. They want to start picking while the cotton is wet or damp and have no scruples against dirt, rocks, green bolls and other volume and weight-making tactics in order to increase personal monetary returns. Everyone knows that once cotton is ready to pick weathering becomes a constant threat, and many farmers "put up" with the malpractices mentioned in order to get the crop harvested and to avoid the double risk of off color and lower grades that are often associated with late season harvesting.

Ginning Cannot Increase Inherent Quality

Another and important factor in the type of cotton appearing at the gin is the fault of the ginner himself. Some ginners apparently feel that a few extra cylinders of cleaners, a drier, a bur machine and a lint cleaner equip them to take low grade hay and make strict middling cotton out of it. Their advertisements sometimes infer as much.

Although the grade of the finished sample will vary somewhat in accordance with cleaning equipment used, even advanced ginning technology cannot yet make "a silk purse from a sow's ear." The ginning process either preserves or decreases the inherent quality of the cotton. It cannot increase it. A thorough understanding of this fact by farmers, and even some ginners, might improve the general quality of cotton brought to the gin and also improve the relationship between farmer and ginner.

Cotton damp from dew or wet from

BOTH THE FARMER and the ginner directly benefit from improvements in harvesting and handling cotton, declares the author, who also points out that the most modern cleaning equipment at the gin can only preserve or decrease the inherent quality of the cotton—it cannot increase it.

rain must be dried before the ginner can do the best job of cleaning and ginning. Excessive drying, however, damages the fiber. Returning the correct moisture to the lint before it is pressed into the bale replaces the weight only, but does not correct the fiber damage occasioned by excessive heat.

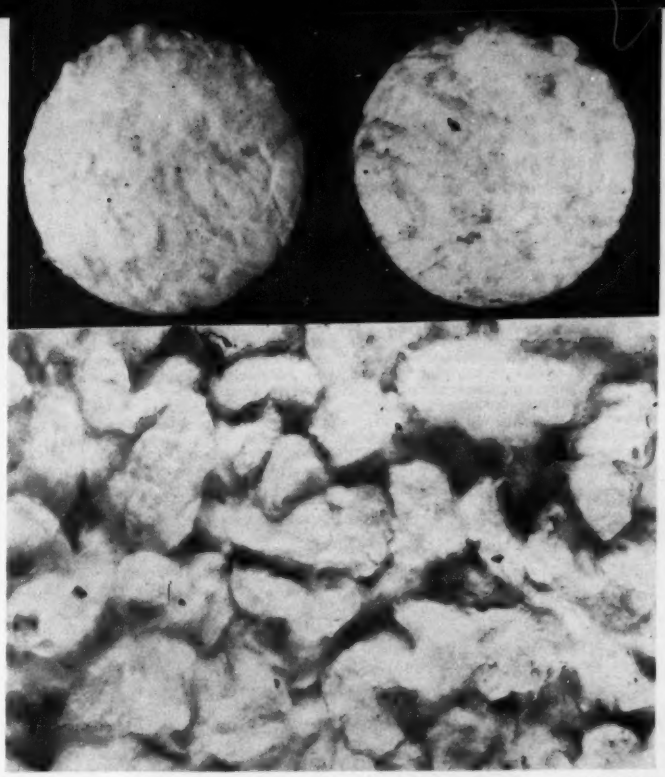
What is the answer to this problem of rough harvesting? Is there an answer? In the July 22, 1950, issue of *The Cotton Gin and Oil Mill Press*, the following statement was made in an article titled "Better Harvesting": "The problem of preparing seed for ginning has no one-time solution, nor can any one person solve it alone." That statement, true 10 years ago and true last year, is still just as true today. Grandfather's adeptness at surgery is of little benefit to the grandson. Just as each individual's development and efficiency is dependent upon education and training, so it is with the problem with which we are dealing. Education, practice and supervision must all be continuously applied before results can be expected. In the matter of cotton harvest too little has been said or done to reward good practices or penalize poor practices.

Ginner-Farmer Cooperation Is Important

The matter of ginner-farmer cooperation in solving this particular problem is most important. A basic consideration is that the farmer, as well as the ginner, must know and understand the capabilities and limitations of gin equipment and machinery. This is primarily an educational job and one that has been recognized by the educational groups serving the cotton industry. The Extension Services are intensifying their efforts to bring about this mutual understanding. Through their efforts, along with those of the national and state ginner associations, gin machinery manufacturers and USDA gin engineers, much progress is being made and more can be expected from the cooperative programs underway.

Machine harvesting, both by the picker and stripper method, has no doubt contributed to poor hand harvesting. Ginners equipped to handle such cottons object less to rough cotton harvested by hand. However, farmers who are content to pay hand-harvesting wages and in turn receive machine-harvested field quality are penalizing themselves. This is especially true in early season harvesting.

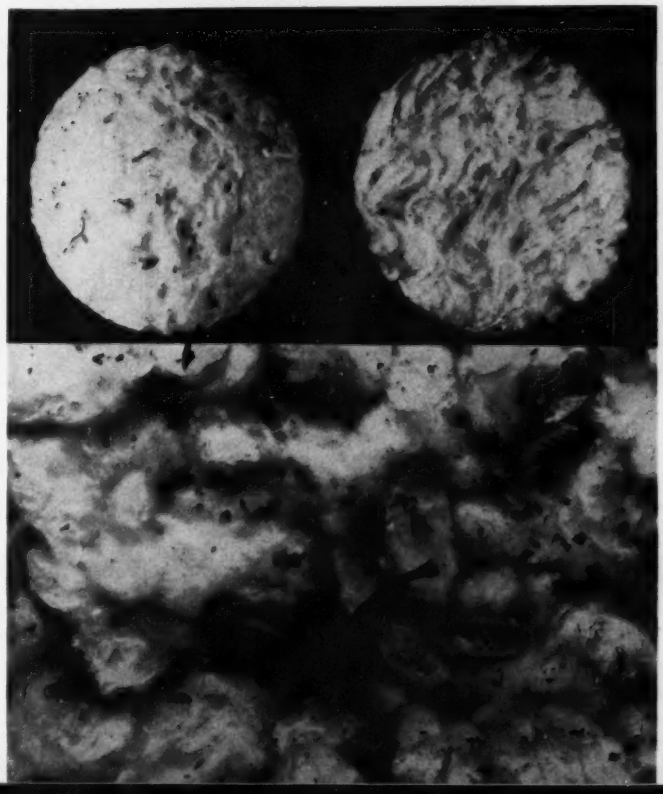
Machine harvesting is increasing rapidly and is undoubtedly here to stay; however, whatever influence machines may have on lax hand harvesting cannot be eliminated unless and until the mechanical pickers or strippers actually harvest and clean the seed cotton better than hand harvesters. This may not be as remote as it at first sounds. At the present time most roughness in machine-harvested cotton is limited to fibrous materials; i.e., burs, limbs, weeds, grass, etc. Wire, metals and rocks usually make their presence known in the field machine; therefore, this fire danger and machinery damage threat is usually discovered and removed before the gin machinery is subjected to it. This is more true with pickers than with strippers, but in either case both methods reduce these "foreign materials" more than hand harvesting. At least the machines do not seek weight



USDA Photo

PHOTOGRAPH above shows clean seed cotton with the resultant lint samples. Picture below shows a sample of well tramped rough hand harvested cotton with corresponding lint samples. Both cottons were processed in the same gin plant.

USDA Photo



advantages by deliberately placing foreign materials in the seed cotton.

Suggestions to Farmers

What can the farmers do to improve the hand harvesting and handling of seed cotton?

First, have the field as clean as possible of weeds and grass.

Second, supervise the picking more closely. Every child big enough to pick cotton knows the difference between "open cotton" and a green boll, a plow sweep or an old shoe. No picker could or would object to the exclusion of such items from his weights or the seed cotton. The supervisor at the scales or wagon and someone apart from the crew to "inspect," and "*dock*," would certainly cut down on foreign materials and would, by his very presence, inspire cleaner picking.

Third, be sure the cotton is dry before picking, and take precautions to keep it dry until ginned.

Fourth, defoliate where necessary. This allows the sunshine to dry the open cotton and hastens the opening of mature bolls.

Fifth, guard against piling seed cotton on the ground or in dirty vehicles. Do not allow seed cotton to be tramped in a wagon or truck. Dry leaf particles, weed and grass seed thus imbedded in the cotton often accompany the lint to the mill and sometimes cause down grading in the finished products.

Sixth, avoid mixing good and poor grade cottons. Your bale will always class according to the lower side of the bale.

Seventh, give the ginner time to gin your cotton properly. The USDA cotton ginning specialists tell us that each gin saw operating properly should handle seven to nine pounds of lint per hour. This means a gin plant with four 80-saw stands should, under optimum conditions, gin a bale of cotton every 12 to 15 minutes. Under ideal conditions this might be improved, and under stressed operations might be reduced.

Lastly, do not expect miracles. The ginner has only one purpose in mind while ginning your cotton—to satisfy you. He has only one source of material from which to develop the satisfaction you desire—the cotton that you brought him.

The Ginner's Responsibility

The ginner also has a responsibility in combating the problem of rough harvesting and handling of seed cotton. He can make clear to his customers the disadvantages of poorly harvested cotton and the problems of obtaining the best grade and staple. He, better than anyone else, should know the capabilities of his plant and its limitations. He, better than anyone else, can demand that the gin be operated accordingly, and who can explain this to fidgety patrons better than the ginner himself? Operating the gin too fast, overcrowding, overdrying or ginning cotton wet hurts both the ginner and the farmer. The judgment and decision of the ginner usually determines the manner of ginning, and this explained to the patrons could well influence their opinion and action in the better handling of seed cotton.

In summary then, we can expect at least as much, and most probably more, rough harvesting this year as in previous years. Any reduction that can be effected will well pay both the farmer and the ginner. Improvement in hand harvesting will not come about accidentally, but must be achieved through a planned educational approach. The farmer and ginner are in position to directly benefit from improvements, but they are also in position to lose from negligence or indifference. The trade wants better cotton, but it pays only for what it gets.

Can you, Mr. Farmer, and you, Mr. Ginner, team up to halt this increasing menace to cotton income and gin returns? The development of the answer to this question during the 1951 harvest season will be interesting to watch.

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Malayan 1950 Palm Oil and Palm Kernel Exports

Exports of palm oil and palm kernels from the Federation of Malaya during 1950 totaled 57,350 and 10,168 short tons, respectively. The volume of palm oil dropped about seven percent from the quantity shipped in 1949 while kernel exports rose four percent from the previous year.

Production of palm oil and kernels increased slightly in 1950. Palm oil output amounted to 59,550 tons against 56,630 tons during 1949. Palm kernel production of 13,440 tons increased one-fourth from the 10,460 tons of 1949.

• Department of Agriculture tests show cotton to have greater insulating value that the 10 other leading commercial insulating materials.

Watch for Cotton Insects, Council Warns Farmers

Inspect fields frequently for insects and follow a recommended poisoning program when infestation reveals there's a need for it, the National Cotton Council is urging in warning cotton farmers against complacency with regard to pest control.

"Scattered reports that insects are causing little or no appreciable damage to cotton this year are lulling some producers into a sense of false security. This particularly is dangerous at this period. Reports from all states indicate that infestations have ranged from low to extremely high," Claude L. Welch, the Council's director of production and marketing, points out.

Entomologists in each cotton producing state recommend that due to the great fluctuation of infestations, producers examine each field at not less than weekly intervals.

In the "Weevil Belt" practically every field in most areas recently examined by entomologists has revealed presence of boll weevils. In some cases inspections would disclose more than 75 percent of the squares destroyed by boll weevils in one field while in an adjoining plot, even on the same farm, infestations would be negligible.

"Weevil migration always is a critical period even though infestations have been kept low all though the season up until this time," the Council's production and marketing director adds.

"Serious square and boll damage can be inflicted unless proper protection is provided. Late planted cotton especially is susceptible to weevil destruction during migration. During the next few weeks this movement of weevils from one field to another probably will be taking place throughout the 'Weevil Belt.'"

Tennessee Ginners Tour Stoneville Laboratory

Tennessee ginners made their annual tour of the U.S. Cotton Ginning Laboratory at Stoneville, Miss., July 19-20, seeing the laboratory's equipment and hearing ginning specialists discuss research in ginning methods. The ginners also toured the Delta Branch Experiment Station during their visit to Stoneville.

Stoneville Pedigreed Seed Co. entertained the ginners at noon July 19 and Delta & Pine Land Co., Scott, Miss., was their host that evening. The tour was sponsored by the Tennessee Cotton Ginners Association and the Tennessee Extension Service.

Paul Roberts, Machinery Engineer, Dies

Paul V. Roberts, 57, Taft, Texas, consulting engineer for vegetable oil mills, died in a hospital at Sinton, Texas, July 8 following a heart attack that afternoon. Funeral services were held in Taft July 10. At the time of his death he was employed by the French Oil Mill Machinery Co.

Survivors include his wife; his mother, Mrs. Mintie Roberts, Portland, Texas; a brother, W. M. Roberts, Taft; and three sisters, Mrs. Ruby Camp of Portland, Mrs. J. L. Petty of Corpus Christi, Texas, and Mrs. L. E. Manny of Portland.

1951 Cotton Crop Could Be Normal—or Big

With 29,510,000 acres of cotton in cultivation on July 1, the largest July 1 acreage since 1937, the total U.S. yield this year could be almost 19,000,000 bales if yield is good—or could be much lower than requested by USDA if production per acre falls, although planting exceeded the acreage guide recommended by the Secretary of Agriculture by about one million acres.

If abandonment is approximately the same as the average abandonment from natural causes for the last 10 years—two percent—28,910,000 acres of cotton would be harvested in the 1951-52 season. If yield per acre should equal the highest of the last five years, production on this acreage would amount to 18.7 million bales; at the lowest per acre yield of the last five years, production would amount to 14.1 million bales.

With an estimated carry-in stock of 1.9 million bales, imports of about 200,000 bales and production as assumed above, total supply during the 1951-52 season would be between 16.2 and 20.8 million bales—or from 96 to 123 percent of the U.S. supply of cotton during 1950-51.

Canadian Usage Drops

Consumption of cotton by Canadian textile mills during June 1951 totaled slightly more than 41,000 bales (500 pounds gross weight), or about 3,000 bales below consumption in the previous month. During the 11-month period August-June 1950-51, Canadian mills consumed 451,000 bales.

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Research on
COTTONSEED STORAGE AND PROCESSING
At the Southern Regional Research Laboratory

Abstract

Research at the Southern Regional Research Laboratory on the storage of cottonseed has been concentrated on the inhibition of the biological changes by means of chemical treatment. It has been recognized that the addition of a chemical to seeds raises questions about its effect on derived food and feed products. In the first stage of the research the objective has been development of a principal of inhibition by use of chemicals. Hundreds of chemicals were tested in the laboratory and a few of the promising ones tested in cooperation with commercial processors. In commercial storage, the production of heat and the rate of formation of free fatty acids were found to be dependent on the initial moisture and free fatty acids content. Reduction in moisture by sustained ventilation did not completely control the rapid increase in free fatty acids during storage.

Some advantage is gained by chemical treatment but no method has yet been developed which is ready for commercial application. Continuing laboratory research is concerned with determining the effect of heating and of treatment with fungicides on the storage properties of cottonseed.

Cottonseed meal is a variable material both in its chemical properties and nutritional value. One cannot therefore talk about the nutritive value of cottonseed meal unless he is referring to a particular lot whose processing history and chemical properties are carefully defined. The Southern Regional Research Laboratory, in cooperation with the Educational Service of the National Cottonseed Products Association, has undertaken to clarify this matter by taking the responsibility for providing nutrition investigators with meals of known processing history. Forty tons of such meals have been provided thus far. It was found that experimentally made screw-press meals could be fed to hogs in concentration as high as 43 percent of the total diet and to chicks in concentration as high as 70 percent and support good growth. Lower temperatures of cooking in the screw press operation resulted in meals with higher nutritive value. Some meals have been produced which do not cause egg yolk discoloration in stored eggs even when fed at levels of 20 to 25 percent of the diet.

The principles of cottonseed processing are being explored and methods are being developed to produce meals of high dietary value which will be competitive with other oilseed meals for all types of livestock.

* * *

By AARON M. ALTSCHUL

Southern Regional Research Laboratory
New Orleans, La.

■ Dr. Altschul, who is head of the Protein and Carbohydrate Division of the Southern Regional Research Laboratory, presented the accompanying paper at the twelfth annual Cotton Research Congress at College Station, Texas, July 27. It is a report of a study in which certain phases were carried out under the Research and Marketing Act of 1946 and in which the National Cottonseed Products Association and the oilseed crushing industry have cooperated.

At the two previous meetings of this Congress, Dr. Walter M. Scott, now assistant chief of our bureau, and James A. Kime, technical assistant to the director of this laboratory, gave complete pictures of the research and development in fields relating to cotton lint. It is my purpose to discuss two aspects of research on cottonseed—storage and processing to improve the nutritive value of the meal. Under the leadership of Dr. Markley, Mr. Hopper and Mr. Gastrock, considerable research is conducted on cottonseed oil, the analysis of cottonseed products, the development of new methods of analysis, and on engineering aspects of processing and refining. Perhaps on another occasion you will have an opportunity to hear more about various aspects of the work on cottonseed. Selection of two topics will permit me to discuss them in greater detail and give you a better idea of the method of approach to these problems.

10 Percent of World Foodstuff Is Lost In Storage

It has been estimated that on a world wide basis, 10 percent of the foodstuff in the world is destroyed during storage by one means or another. This amount of food could possibly feed a population of 100 million people. In the U. S., particularly in the Gulf and Atlantic Coast areas, considerable damage results from deterioration in storage of cottonseed, rice, flaxseed, peanuts and other commodities. Any improvement in storage procedures that would minimize this deterioration would be of value to the farmer, processor and consumer alike.

In a period when the manpower of the nation must be used to maximum advantage in the defense effort, there is more need than ever for adequate foodstuff grown with the least amount of drain on our manpower. For this reason, any amount of deterioration in storage of critical foodstuffs and feedstuffs would be reflected in additional manpower requirements to make up for the lost material.

• **Heating Causes Deterioration**—A major cause of deterioration of cottonseed during storage arises from heating of the material when stored in bulk. This may result in loss in quality and in viability. If conditions of harvest are good, cottonseed is obtained at the gin with moisture contents below 11 percent. Cottonseed of higher moisture contents may heat when stored in bulk. One effect of heating is that the color of the oil is increased; another effect is that other deteriorative processes, such as breakdown of fats and proteins, are accelerated. Even if heating is controlled by ventilation there still exists a deterioration in quality as a result of the formation of free fatty acids. In an experiment conducted by our laboratory, in cooperation with industry, cottonseed was stored in a bin where heating was minimized by forced ventilation. Despite this fact, the free fatty acids content of the seed of 17 percent moisture content after storage for 70 days increased from 1½ to six percent. Such deterioration is serious because it amounts to a loss of edible oil. The third type of loss, in viability of planting seed, can take place even though the seeds have been kept cool by mechanical means. An adequate solution to the storage problem requires that all of the categories of deterioration be minimized.

Many workers in federal, state and industrial laboratories have contributed to the information on the prevention of deterioration in cottonseed during storage. Considerable work has been done in the past and work is underway on the use of mechanical means of aeration to control heating and deterioration and on drying techniques. Other workers have been investigating the effects of storage atmosphere on the rate of deterioration. The position taken at this laboratory has been that its research program should fit in with the research already under way. For this reason our laboratory has maintained full cooperation with the cottonseed industry and with other federal and state organizations

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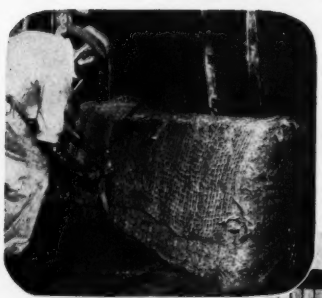

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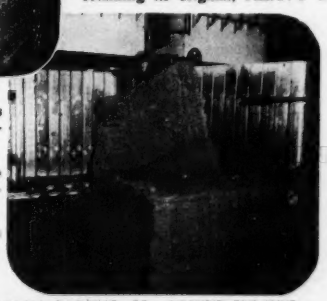

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that have been conducting research in the field of cottonseed storage.

• **First Phase—To Find Chemical Inhibitor**—The approach taken at the laboratory has been from the viewpoint that deterioration, regardless of its cause —insects, fungi or the seed enzymes themselves—is biological and should be subject to inhibition by use of chemical treatment. It is recognized, of course, that the addition of a chemical to cottonseed raises questions about its effect on the derived food and feed products. In the first stage of research the objective is to establish a principle of inhibition of deterioration by the use of chemicals. Should this principle be established, then the next consideration is to search for chemicals which could be incorporated in this material and yet have no effect on the food or feed quality of the resulting products.

In the laboratory hundreds of chemicals were screened to determine whether they could prevent heating of artificially moistened cottonseed kept in vacuum flasks. It was found that many chemicals indeed were capable, when applied in concentrations of from six to 15 pounds per ton, of inhibiting the heating of such seeds. Some of these chemicals were familiar ones and had been used for other purposes and some were very new, having just recently been developed by chemical manufacturers. No effort in this first series of screening experiments was made to distinguish between chemicals which had known fungicidal activity and those which may not have given evidence of having fungicidal activity.

One must be careful in accepting results obtained on artificially moistened seeds. For this reason it was necessary to conduct experiments on the premises of industrial cottonseed mills in order to determine whether results obtained in the laboratory could be translated to naturally moist seed stored under conditions simulating those of industrial storage. A series of these experiments was conducted over a period of years in cooperation with several industrial firms and with the aid of the National Cottonseed Products Association, which provided a fellowship for this purpose. These experiments have been completed and the first report on the investigations has appeared recently in the *Journal of the American Oil Chemists' Society*[1].

Progress reports on the course of this research have appeared in *The Cotton Gin and Oil Mill Press* in 1950[2] and 1951[3].

The results of these experiments may be summarized as follows:

(1) The production of heat and the rate at which free fatty acids are formed in cottonseed are dependent not only on the initial moisture content but also on the initial free fatty acids content.

(2) A reduction in moisture content by sustained aeration does not completely control the rapid increase in free fatty acids content which takes place during the initial month of storage.

(3) Whenever there has been extensive deterioration during storage there appears to be a slight decrease in the oil content of the seed.

In addition to these general results on the storage of seed under conditions simulating commercial storage, it was found that when chemical treatment was applied there was a reduction in the rate of deterioration in the stored seed. Chemical treatments supplemented by aeration retarded the formation of free fatty acids for a limited period. The longest period in which there was no increase in free fatty acids as a result of chemical treatment combined with aeration was 52 days.

The significant result of this phase of experimentation is that it has been established that some advantage can be gained by the use of chemical treatment in addition to the other methods of handling the seed. Another very important consequence is that extensive information is now available on the effect of one particular mixture of two chemicals (propylene glycol dipropionate and 1,3-dimethyl-4, 6-bischloromethyl benzene) on heating, formation of free fatty acids and other properties of stored cottonseed. Although no method has been developed which is ready for commercial application, it is possible in

[1] Jensen, E. A., et al.: "The Storage of Cottonseed, IX, Behavior of Cottonseed During Storage Under Mill Conditions," J. Am. Oil Chem. Soc. 28 (6) 241-245. 1951.

[2,3] Jensen, E. A., Lambou, M. G., and Altschul, A. M.: "Research on the Storage of Cottonseed." The Cotton Gin and Oil Mill Press, Jan. 21, 1950 and Feb. 17, 1951.

Digest of Revision of Regulations of Texas Pink Bollworm Quarantine

LEGEND—

1. Heavily infested counties—cottonseed produced in counties in Zone 1 may be shipped to: (a) designated oil mills in any other counties in Zones 1 and 2 for processing after regular gin sterilization; (b) designated oil mills in any of the counties in Zone 3 after a second heat treatment at 150° F. for 30 seconds or methyl bromide fumigation. The second treatment may be given before leaving the zone or at the designated mill in Zone 3, and oil mills in free counties adjoining the regulated area will also be designated to receive and treat such seed in the above manner; (c) any other destination including lightly infested pink bollworm areas in Arizona, Louisiana and Oklahoma without restriction after a second heat treatment at 155° F. for 2 minutes or methyl bromide fumigation, administered in the heavily infested zone.

2. Cottonseed produced in counties in Zone 2 may move to any destination after regular gin sterilization.

3. Cottonseed produced in counties in Zone 3 must be shipped to designated oil mills in or adjacent to the regulated area for heat treatment at 150° F. for 30 seconds or for methyl bromide fumigation on arrival.

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the laboratory to compare this particular treatment with any new treatments that are being proposed in order to determine whether they will be adequate and perhaps even superior to the one that has already been extensively tested.

• **Two Further Investigations** — Having completed this phase of the research, our laboratory research program is concerned with two investigations. The first is the determination of the specific effect of fungicides used in a fungicidal concentration on the spontaneous development of heat and the formation of free fatty acids in cottonseed during storage. Chemicals which are known to have fungicidal activity are being tested in concentration generally used in their application for other purposes, such concentration being approximately .1 percent of the weight of the seed, or two pounds per ton. Already some fungicides have been found which show promising properties and which seem to be more effective than the chemical treatment which has been extensively investigated in field experiments. The other investigation is to determine the effect of other methods of handling as complementary agents to chemical treatment. Thus, there is being conducted an investigation of the effect of heating of cottonseed on viability, color of oil and rate of formation of free fatty acids during storage. It is entirely possible that either one of the two methods being investigated will be of distinct advantage in preventing deterioration, and the possibility also exists that a combination of the methods may be economically more advantageous than any of the methods themselves.

An incidental result of the effect of study of heating on the properties of cottonseed lies in the fact that heating is required as part of the pink bollworm control operations. As the area of control spreads, cottonseed of higher moisture content is being included in the program and new problems of adjustment to the control program are being created. The information obtained in heating experiments is expected to be of value to those who have to include heating as part of their operations.

A major objective of cottonseed storage research as well as research on the storage of other seeds is to understand more about the basic properties of the seed[4]. Why do they deteriorate? Why is it that seeds with the same moisture content deteriorate at different rates? Methods must be developed which will provide a clear understanding of the biological activity in the seeds at the time they are put into storage. In an effort to provide an answer to some of these questions, there has been developed at this laboratory a method for determining the oxidizing and reducing properties of seeds. These properties are presumably related to the vigor and to the biological activity in the seed. It is our hope that when sufficient information is available on the properties of a variety of seeds as examined by this technique, it will be possible to obtain a clearer understanding of the mechanism of seed deterioration and a basis will be provided for a more intelligent approach to the entire problem of prevention of deterioration.

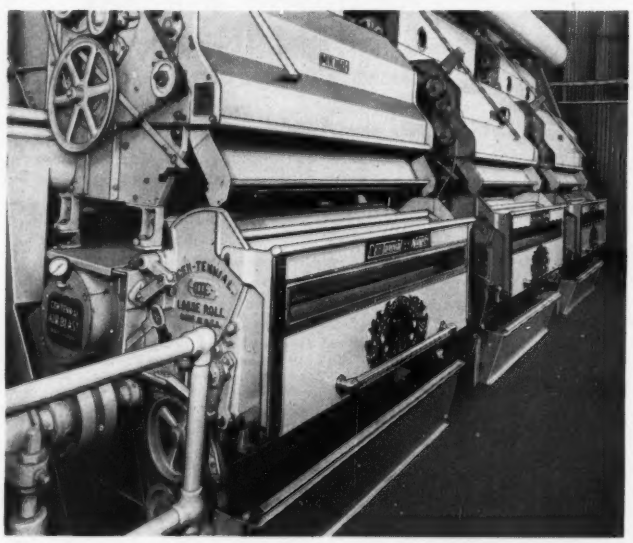
[4] Altschul, A. M.; in A. E. Bailey, Cottonseed and Cottonseed Products, Interscience Publishers, Inc., New York City, 1948.

Nutritive Value Can Be Varied By Processing Conditions

Let us turn now to another research problem which resembles the one which I have just described in that it has as its objective the more efficient use of agricultural products. The improvement in the nutritive value of cottonseed meals through changes in the conditions of processing may also be considered an objective of significance to the defense effort: for if this objective is achieved, the equivalent of hundreds of thousands of tons of additional cottonseed meal will be made available to the feeder with no additional drain on the manpower reserves. The same acreage of cotton, the same production of cottonseed, the same production of cottonseed meal could be made equivalent to a 10 to 25 percent increase in the availability of cottonseed meal as a feedstuff by virtue of improvement in the feed value of the meal and its versatility of use.

The objective of this research is to produce a cottonseed meal that has the maximum nutritive value inherent in this material as a source of protein. At the outset it must be made clear that research on improvement of the nutritive value of cottonseed meal constitutes no reflection upon the value and utilization of the present product. Cottonseed meal has been demonstrated by years of practicable and profitable use to be an excellent source of protein concentrate for cattle feeds. When used as instructed by the National Cottonseed Products Association's Educational Service, and as contained in such books as Cottonseed Products by M. K. Thornton[5]

[5] Thornton, M. K.; "Cottonseed Products," Oil Mill Gazetteer, Wharton, Texas, 1932.



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and in a chapter on "Cottonseed as a Source of Feedstuff," by Hale and Lyman [6], and as prescribed by many other nutritionists throughout the country, this material can be incorporated successfully in poultry and hog rations. The difficulty arises from the fact that the use of cottonseed meal as presently prepared is limited to nine percent or less of the total ration when feeding swine, six percent of the total mash for layers whose eggs will be consumed fresh, and somewhat higher percentages in diets for chicks. Because of these limitations cottonseed meal has suffered in competition with other oilseed meals and its use in mixed feeds is not commensurate with the protein value in the material. If the limitations just mentioned were inherent in the meals and nothing could be done to eliminate them, then nothing further need be said. Our experience and the experience of others have indicated that these limitations are not inherent in the cottonseed meal. Products can be made under commercial conditions which could be fed hogs and poultry interchangeably with other oilseed meals.

• **Both Chemical Properties and Nutritive Value Are Variable**—A basis for our conclusion is that cottonseed meal is a variable material both in its chemical properties and nutritional value. As is shown in the following table taken from material presented at the last annual meeting of the National Cottonseed Products Association [7], there is a variation between one process and another in the manufacture of cottonseed and almost as much variation within a process as between different processes.

The meals shown in this table were selected at random. They are neither representative of the total cottonseed meal production nor do they represent the limits. They merely were selected to indicate the variations that exist. Three of these chemical analyses, content of free gossypol, soluble nitrogen and thiamine content, are worthy of attention. The content of free gossypol, a measure of the amount of material in the meal which interferes with its complete utilization by such animals as chicks and hogs, varies from .02 to .60 percent. Cottonseed meal is sensitive to heat. Its values as a source of protein can be greatly reduced by overcooking. Such damage would not affect the analysis for protein content as given on the label on the bags. The variation in soluble nitrogen gives some measure of protein change as a result of heat during processing. Approximately 85 percent of the nitrogen in raw cottonseed is soluble in salt solution. In some of the meals listed in the table, as little as nine percent is soluble. Thiamine, one of the B vitamins, is present in surprisingly large quantities in raw cottonseed but is destroyed by heat during processing. There is a variation in the thiamine content of the meals from a high of about 40 to as low as 4½ p.p.m. —an indication of different degrees of heat damage. Similar variations in commercial meals were reported by T. D. Fontaine [8]. He also found that meals

Table 1. Analytical Data on Cottonseed Meals

Preparation	Lipids	Glossypol-like material		Nitrogen		Thiamine
		Free	Total	Soluble [1]	Total	
	%	%	%	%	%	p.p.m.
Screw-press	7.2	0.08	1.10	12.2	6.2	7.3
ditto	5.1	0.03	0.80	9.0	7.2	4.7
ditto	4.0	0.02	0.64	9.2	6.7	4.7
Hydraulic-press	6.3	0.10	1.04	15.5	6.6	8.0
ditto	6.2	0.06	1.24	42.7	8.8	14.0
ditto	7.6	0.04	1.38	24.0	7.2	11.2
Solvent-extracted	1.9	0.60	0.85	66.1	7.2	[3]
ditto	[3]	0.36	0.72	66.0	6.8	18.1
ditto	0.7	0.06	0.08	39.4	6.8	15.3
ditto	0.4	0.06	1.5	32.0	7.3	[3]
Butanone-extracted [2]	0.3	0.03	0.14	72.3	9.0	33.7
Essentially gland-free [2]	1.5	0.06	[3]	85.3	10.1	39.5

[1] Soluble in ½ molar sodium chloride solution.
[2] Prepared in pilot-plant of Southern Regional Research Laboratory.
[3] Analysis not made.

[6] Hale, F., and Lyman, C. M.; in A. E. Bailey, Cottonseed and Cottonseed Products, Interscience Publishers, Inc., New York City, 1948.

[7] Altschul, Aaron M.; "Chemical Properties and Nutritive Value of Cottonseed Meal as Related to Conditions of Processing," presented at annual convention of the National Cottonseed Products Association, Palm Beach, Fla., May 15, 1951.

[8] Fontaine, T. D.; in A. E. Bailey, Cottonseed and Cottonseed Products, Interscience Publishers, Inc., New York City, 1948.

which had different chemical properties also showed different nutritive value in terms of being able to support the gain in weight of rats.

The significance of this demonstration is that one cannot talk about the nutritive value of cottonseed meal unless he is referring to a particular lot whose processing history and chemical properties are carefully defined. For this reason a considerable literature on the nutritive value of cottonseed meal is of limited value.

Any improvement in the nutritive value of cottonseed meal, therefore, involves a basic change in the organization of research on this subject. Heretofore nutritionists did their work on cottonseed meal with inadequate regard to the effect of conditions of processing upon the material. The Southern Regional Research Laboratory undertook to clarify this situation by taking the responsibility for providing nutrition investigators with meals of known processing history. Through its contacts with the industry, arrangements were made for production on an industrial scale of meals of known history which could be used by nutrition investigators. In this respect our objectives coincided with those of the National Cottonseed Products Association's Educational Service. Fortunately, for the progress of this development, close cooperation has been established between the Southern Regional Research Laboratory and the Educational Service of the National Cottonseed Products Association. We are working together with this service, with industry, and with nutrition experts from state, government and industrial laboratories, toward the development of an improved meal.

• **First Tests by Screw-Press Method**—The first meals that were supplied to the nutrition investigators were made by the screw-press method. By this method conditions could be created for the production of meals with low content of free gossypol, .04 percent and lower. It was also found that by reducing the temperature of the material going into the screw press it was possible to produce meals with higher nitrogen solubility and higher thiamine content. The results of the first series of investigations were reported at the meeting of nutritionists held at the Southern Regional Research Laboratory on Nov. 13 and 14 of 1950[9]. These are being published by the nutrition investigators themselves, but may be summarized as follows:

(1) Variation in nutritive value of screw-press meals depending on the conditions of processing has confirmed the earlier work which suggested the variations in the nutritive value of commercial cottonseed meals.

(2) Experimental screw-press meals (containing 0.03 percent free gossypol), prepared in the plant of the South Texas Cotton Oil Co., have been fed to hogs in concentration as high as 43 percent of the total diet, and to chicks in concentration as high as 70 percent, and have been equally effective in supporting good growth as the same concentration of other high quality oilseed protein.

(3) Experimental screw-press meals produced at lower temperatures of cooking yielded meals of higher protein value. Meals produced at a maximum cooking temperature of 200° F. had a higher protein value than those produced at a maximum cooking temperature of 240° F.

(4) Cottonseed meals were produced experimentally (containing less than 0.02 percent free gossypol) which did not produce egg yolk discoloration in stored eggs[10] even when fed at levels of 20 to 25 percent of the diet.

As a result of this nutrition conference there has been an increase in the interest in research on cottonseed meal and requests were made for approximately 25 tons of cottonseed meal of known processing history for further nutrition experiments. With the cooperation of industry and the Educational Service of the National Cottonseed Products Association, these requests have been filled. The object of further research on cottonseed meal is to determine the level of free gossypol which interferes with the use of cottonseed meal in unlimited quantities in diets of swine and chicks and which cause egg yolk discolorations when fed to laying hens. Other experiments are being conducted to determine the effect of difference in conditions of processing in the nutritional value of cottonseed meal for cattle. More fundamental experiments are concerned with the effects of conditions of processing upon the availability of different amino acids in the cottonseed meals and on the effects of supplementation of this meal with amino acids upon its nutritive value. Another meeting of the nutrition work-

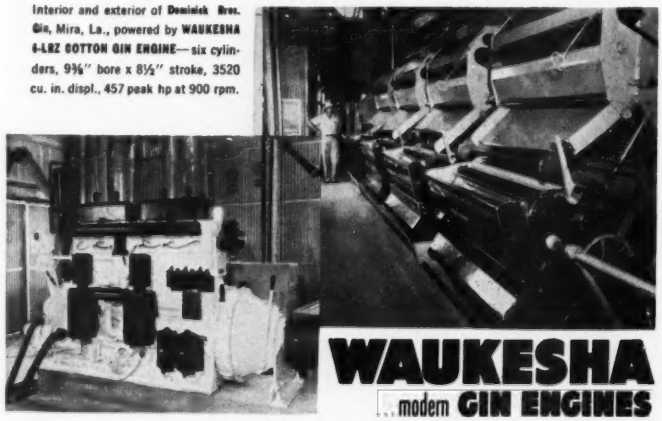
[9] Proceedings of a Research Conference on Processing as Related to Cottonseed Meal Nutrition. Southern Regional Research Laboratory, New Orleans, 1950.

[10] Stephenson, E. L.: "Use of Detoxified Cottonseed Meal as Protein Supplement for Laying Hens." Feedstuffs, April 14, 1951, page 14.

"We have a surplus of power and were amazed at the low operating cost..."

"We built a new gin last year to replace the one that burned," says Paul W. Dominick, Sec. & Treas. of Dominick Brothers, Mira, Louisiana. "Our new gin is a 4-stand 80-saw Continental with the latest equipment . . . purchased an LRZ Waukesha (engine). . . . We have a surplus of power and were amazed at the low operating cost of our first year's operation. We ginned 3,429 bales with a Butane cost of $2,261.02 for our engine and two driers. Our oil cost was $128.30 . . . ginning cost about 69 cents per bale. We highly recommend Waukesha Engines for economical gin service," concludes Mr. Dominick. And many other experienced ginners say the very same thing. To find out why—send for Bulletins 1579 and 1434.

Interior and exterior of Dominick Bros. Gin, Mira, La., powered by WAUKESHA 6-LRZ COTTON GIN ENGINE—six cylinders, 9¾" bore x 8½" stroke, 3520 cu. in. displ., 457 peak hp at 900 rpm.



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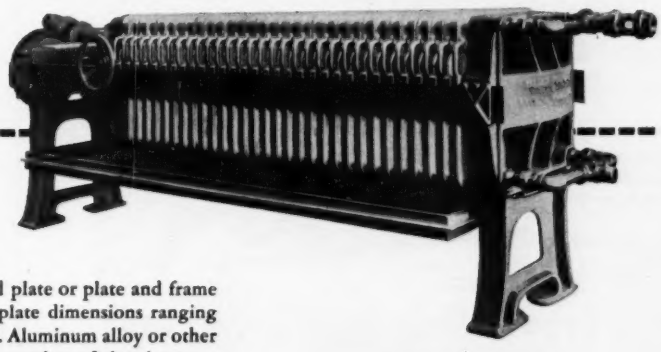
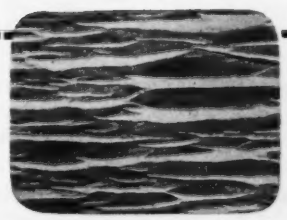


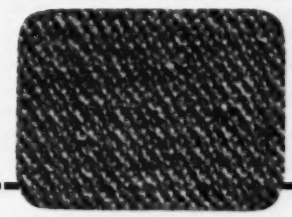
1 **THE VALLEY FILTER PRESS**

Available in recessed plate or plate and frame types, with outside plate dimensions ranging from 6x6" to 42x42". Aluminum alloy or other specified metal. Any number of chambers.



2 **ECONOMY FILTER PAPER**

Designed to Valley specifications, *Economy* filter paper actually *stretches* as filter cake is formed on its rough surface. Shortens breakdown time by releasing cake immediately; use same paper for next cycle.



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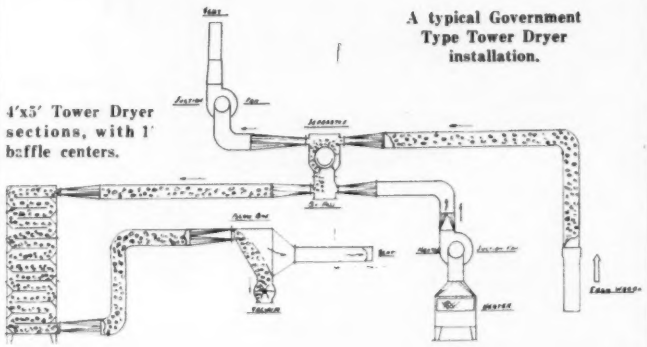
ers has been discussed with A. L. Ward of the Educational Service of the National Cottonseed Products Association and such a meeting is contemplated for this fall. Presumably, many of the questions which I have just raised will be answered by the nutrition experts at this conference.

• **Industrial Tests Under All Processing Methods**—Meanwhile, laboratory research is continuing to develop an understanding of the fundamentals of cottonseed processing operations as they relate to the quality of the products. Cooperative investigations with industrial plants of all types, hydraulic, screw press and solvent extraction, putting to test the validity of concepts developed in the laboratory, are defining the engineering and economic problems involved in developing products of improved quality, and are gradually developing the information required to enable the entire industry to produce superior meals.

In the foregoing I have given two examples of problems affecting the cottonseed industry and the approach toward their solution taken at the Southern Regional Research Laboratory. The first effect of research on a process is to create new problems as old concepts and old procedures are challenged. But in arriving at the answers to these problems, a greater understanding of the fundamentals is developed resulting in an improvement in the process and in the quality of products. The achievement of greater economy in the use of agricultural products as illustrated in these examples will inevitably result in an improvement in the national standard of living.

A typical Government Type Tower Dryer installation.

4'x5' Tower Dryer sections, with 1' baffle centers.



Government Type Tower Dryers
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The Tower Dryer that gets results, pleases customer and ginner alike.

Cotton handled by air, requiring only one extra fan.

Tower can be furnished with 10 to 22 shelves.

We furnish an Automatic Gas Heater of over one million B.T.U. capacity for Natural, Butane, or Propane Gas.

The limiting factors of Dryer performance are:

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Foreign Trade Continues To Rise During May

United States agricultural exports in May 1951, the eleventh month of fiscal year 1950-51, amounted to $353,507,000 in value. During the same month last year agricultural exports were valued at $233,982,000. The country's exports of all commodities, agricultural as well as non-agricultural, were valued at $1,336,460,000 during the month under review against $816,954,000 in May 1950. Agricultural products constituted 26 percent of the total compared with 29 percent during May last year.

On a value basis, wheat and flour continued as the nation's most important agricultural export, with total shipments for the month valued at $100,093,000. This represented an increase of 170 percent from the $37,025,000 in May a year ago. Cotton was second, with exports valued at $93,823,000 compared with $90,003,000 a year ago.

On a quantitative basis, a comparison of May 1951 exports with those for the same month a year ago reveals large increases in exports of such items as butter, lard, tallow, shelled peanuts, soybeans and soybean oil.

Agricultural imports during May were valued at $425,234,000 compared with the $278,925,000 worth imported in May last year, an increase of 62 percent. The country's imports of all commodities, both agricultural and nonagricultural, were valued at $945,804,000 against $653,997,000 in May a year ago, an increase of 45 percent. Agricultural products constituted 48 percent of the May 1951 imports against 43 percent in May last year.

On a quantitative basis, a comparison of the May 1951 imports with those for the same month last year reveals large increases in imports of cotton and jute, but large reductions in imports of coconut meat, copra, coconut oil, palm oil and tung oil.

On balance, U.S. imports of agricultural products during the month of May 1951 exceeded the value of agricultural exports by $98,727,000. During the same month last year, agricultural imports exceeded agricultural exports in value by $44,943,000.

Argentina Increases Oilseed Prices to Producers

The Argentine government's 1951-52 campaign for expanding the acreage of certain cultivated crops was initiated in June with the announcement of guaranteed official prices to producers for flaxseed and sunflower seed. The Argentine Trade Promotion Institute (IAPI) will pay 50 pesos per quintal ($2.54 per bushel) for flaxseed (a 22 percent increase from 1950-51) and 34 pesos ($61.69 per short ton) for sunflower seed (15 percent more than last season).

Growers are promised further price increases, if production costs rise above present levels, and a share in IAPI's export profits if international prices become favorable. Moreover, the Bank of the Nation has been instructed to provide liberal agricultural credit, and efforts are being made to increase farm machinery imports. In addition, government representatives are being sent throughout the country to contact growers and urge greater production.

U. S. Cotton Exports Near Allocation Limits

Exports of cotton from the U.S. in May totaled 385,000 bales of 500 pounds gross weight (371,000 running bales), making a cumulative total of 3,937,000 bales (3,784,000 running bales) for the 10 months August-May 1950-51. Exports under the allocation system amounted to 3,410,000 bales out of 3,696,000 bales allocated, leaving a balance of 286,000 bales to be shipped prior to Aug. 1. Unrestricted exports to Canada are additional.

Export licenses approved to July 9 this season amounted to 3,680,000 bales, indicating that all except about 16,000 bales of the allocated cotton had been licensed at that date. There are several factors, however, that may cause total exports this season to be nearly 4.3 million bales instead of 4.2 million as previously estimated. First is the high level of exports to Canada. Exports to that country amounted to 397,000 bales during the 10 months under review, ranging between 40,000 and 55,000 bales a month in recent months. Even though a sharp season-end drop in purchases may occur because of satisfactory stocks on hand and lower priced new-crop cotton becoming available soon, it appears that exports to Canada may exceed 450,000 bales instead of the 400,000 to 425,000 previously estimated.

Since export allocations are in terms of bales of 500 pounds gross weight whereas export licenses are issued on a basis of 500 pounds net weight, this means that exports to most countries (in terms of gross weight bales) will probably exceed their individual allocations by a small amount.

A third factor is the announcement by the Secretary of Agriculture on July 12 that removed the export restrictions for the remaining 19 days in July on the export movement of cotton to qualifying countries whether or not their individual allocations were exhausted.

An initial allocation of 2.5 million bales, to be exported after Aug. 1, was announced on June 12 and the issuance of licenses by the Department of Commerce was begun on July 10. This allocation was increased by one million bales on July 11 but the break-down of this amount by recipient countries has not yet been announced.

Canada's Margarine Production Is High

Canada's margarine production during the first half of 1951 amounted to 54.9 million pounds, compared with 49 million pounds for the corresponding period in 1950, according to a report from the Dominion Bureau of Statistics, Ottawa.

Although second-quarter output was down about 18 percent from the previous three-month period, production increased almost 16 percent from the corresponding quarter in 1950. Total margarine output in 1950 amounted to 94,032,000 pounds.

Margarine stocks, including those held by manufacturers, wholesalers and and other warehouses, were 3.3 million pounds as of July 1, 1951. This was somewhat less than 3.6 million pounds held on July 1, 1950. Of the 1951 total, 1.4 million pounds were held by manufacturers.

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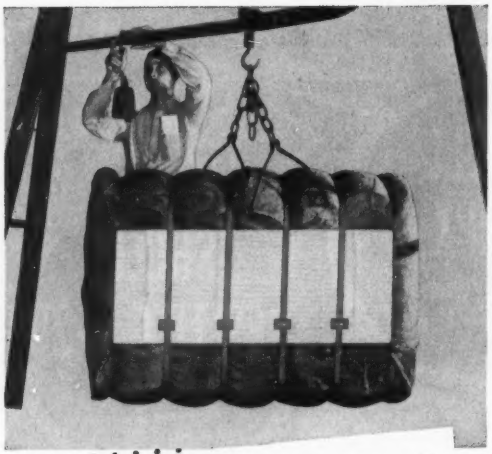

Keep your bales neat and firm with
U·S·S ARROW COTTON TIES

HEAVY baling pressures are held firmly and safely by U·S·S Arrow Cotton Ties, and bales arrive at their destination in the same condition as shipped. That's because U·S·S Arrow Cotton Ties are made of steel that's tough enough and strong enough to resist internal strain and external abrasion. They do *not* cut through at the buckles.

You are assured of uniformity in the U·S·S Arrow Cotton Ties you buy because every step in their production, from ore to finished product, is under the direct control of the South's largest steel mill and the world's largest producer of cotton ties. Ginners in the South and Southwest use more U·S·S Arrow Cotton Ties than any other brand.

You can get the U·S·S Arrow Cotton Ties you need from conveniently located warehouses in the Cotton Belt.

Look for the "T" on the buckle of genuine U·S·S ARROW COTTON TIES

The standard bundle of U·S·S Arrow Cotton Ties contains 30 ties, 11½ feet in length, and 30 buckles. It weighs approximately 45 pounds. Ties are 15/16" wide and approximately No. 19 gauge steel.

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World Cotton Production for 1951-52 Is Estimated at 35.2 Million Bales

The International Cotton Advisory Committee estimates world cotton production during 1951-52 at about 35.2 million bales. This estimate was made in May and assumes the goal production in the U.S. of 16 million bales. Except for 1937-38, this would be the largest world production on record and 28 percent higher than 1950-51. However, world carry-in stocks will be small, about 10.7 million bales, and total world supply will amount to about 45.9 million bales. This compares with 44.1 million in 1950-51.

If the U.S. cotton crop is within the 14.1 million to 18.7 million bale range estimated as of July 1, cotton linters production in the U.S. during 1951-52 would be between 1.6 and 2.1 million bales. Carry-over on Aug. 1 will be between 250,000 and 300,000 bales. With imports of around 100,000 bales, total supplies in 1951-52 will be between two and 2.5 million bales.

In July, for the first time since the reopening of the futures markets on March 8, prices of spot cotton dropped considerably below the ceiling prices. Among the factors causing the drop were trade anticipation of a large crop, sharp declines in textile prices, and peace talks in Korea. The prices of futures contracts also continued to decline. Linters prices declined sharply during June and July.

Cotton Bales Are Damaged in Boxcar Blaze

From 20 to 22 bales of cotton were damaged when a carload of cotton caught fire July 27 in the Harlingen yard while en route from Mercedes to Brownsville. High pressure "wet water" lines were used by the Harlingen fire department to extinguish the blaze.

Soy-Rich Products to Expand Oil Mill

Soy-Rich Products, Wichita, Kan., soybean and linseed oil mill, has awarded a contract to expand its solvent extraction plant to the Chemical Plants Division of Blaw-Knox Co. The plant's capacity will be increased from 75 to 150 tons a day.

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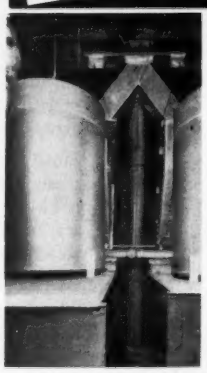
HAMMOND Screw-Lift
ELEVATING FEED MATERIALS 37 FEET TO MIXING TANKS



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You can use a Screw-Lift in many different ways—at the receiving department of your plant or the shipping end. You can use it for conveying to storage or to reclaim from storage. You can use it to carry materials to baggers or into process. And, it will synchronize with your flow.

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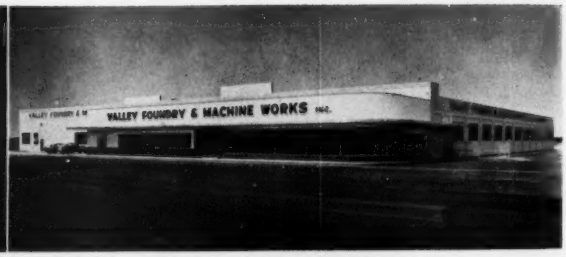


Valley Foundry President Receives Empire Award for Progress

PHOTO AT LEFT: Harry S. Baker, right, president of the Producers Cotton Oil Co., Fresno, Calif., and a director of the National Cotton Council, is shown with Leon S. Peters, president of the Valley Foundry & Machine Works, Fresno, who has just received a progress award from the Central Valley Empire Association on the occasion of the opening of Valley Foundry's new plant. Mr. Baker is a director of the Empire Association.

PHOTO AT RIGHT: New plant of Valley Foundry & Machine Works, well-known supplier of filter presses and other equipment to oil mills throughout the nation, is pictured above.

U.S. Cotton Imports Decline in May

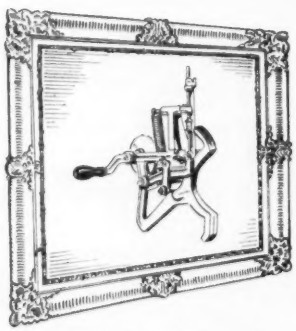
Imports of cotton into the U.S. in May amounted to only 16,000 bales (of 500 pounds gross weight), nearly 15,000 of which were received from India. Imports during August-May 1950-51 totaled 181,000 bales compared with 250,000 for a similar period a year ago.

Imports are necessarily low at this time of the year because the short staple import quota is usually filled soon after the quota year opens on Sept. 20 and the same applies to the long staple quota which opens on Feb. 1. Import quotas, regular and supplemental, in efect during the year ended July 31 would permit the entry of approximately 146,000 bales (of 500 pounds gross) of Indian (Asiatic type cotton), 111,000 bales (95,000 regular and 16,000 supplemental quota) of long staple (usually Egyptian Karnak with a small quantity of Peruvian Pima), 6,000 bales (two supplemental quotas) of Peruvian Tanguis, and 30,000 bales (includes 18,500 bales from Mexico) of American Upland type, making a total of 293,000 bales. This does not include purchases of Egyptian cotton by the U.S. government for stock piling, and such imports are not included in the import statistics until withdrawn from warehouses for forwarding to mills.

Lower imports in 1950-51 are mainly attributed to unusually high prices of foreign-grown cotton.

OVER HALF A CENTURY—THE VERY BEST

from A.A. Wood & Sons Co.



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WOOD'S LATEST
5-Head Rotary Gummer
"The Quint"
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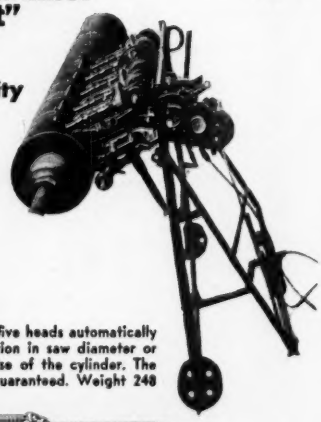
Efficiency of 5 single machines, plus flexibility

Adjustable to any gin or linter saw from 9 to 12½ inches in diameter, the "Quint" can be fitted to any saw spacing without affecting the efficient dual side-dressing and pointing operation.



Although driven from one motor, the five heads automatically adjust themselves to any slight variation in saw diameter or irregular alignment of teeth lengthwise of the cylinder. The "Quint", No. 55, is unconditionally guaranteed. Weight 248 lbs

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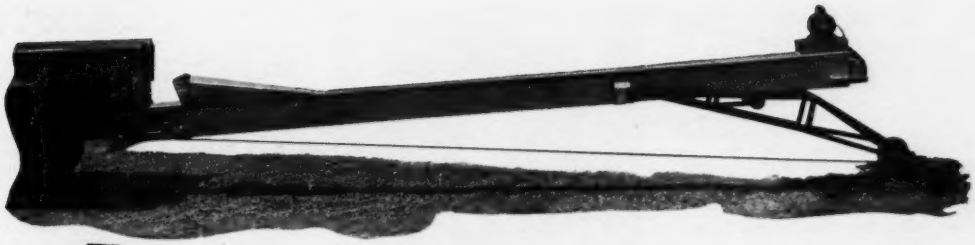
Machinery for Ginners and Oil Mills **Phone MAin 2386** **P. O. Box 937** **436 Magnolia St., N. W., Atlanta, Georgia**



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Conveyor elevated to 40 degrees.

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Cotton Research

(Continued from Page 18)

research with special-process cottonseed meal for swine and poultry which also was outlined for Congress visitors.

Emphasizing that cottonseed meal is an excellent source of protein for beef and dairy cattle, as well as other animals, Dr. A. M. Altschul of the Southern Regional Research Laboratory discussed research in processing and nutrition looking toward expanded use of cottonseed meal for swine and poultry.

Included on the tours were projects dealing with wild cottons and hybrids, cotton testing and spinning, insect control, mechanization, diseases, ginning, cottonseed storage for planting purposes, and others.

Displayed in front of the Congress headquarters, the Memorial Student Center, were 27 farm machinery units, including nine cotton pickers made by four different firms and two mechanical strippers.

Numerous exhibits in the center showed cotton and cottonseed products, economic studies and commercial products.

Burris C. Jackson, Hillsboro, general chairman of the State-Wide Cotton Committee, emphasized the contributions that Texas A. & M. has made to cotton in his keynote address. The Texas Cotton Association was host at a reception honoring the college on its seventy-fifth anniversary.

Other entertainment included a breakfast given by the Dallas Cotton Exchange and a barbecue sponsored by the Bryan Chamber of Commerce and the Texas Planting Seed Association.

The research worker actually holds the balance of power in an industry which, of all American industry, is the perfect example of American tradition —free enterprise, Robert C. Jackson, American Cotton Manufacturers Association, Charlotte, N. C., pointed out.

M. K. Horne, Jr., National Cotton Council, presented comprehensive information on the relationship of cotton research to the consumer. He said that cotton must go forward with research and promotion, and cannot depend on expanding economy or the law of averages to provide its markets.

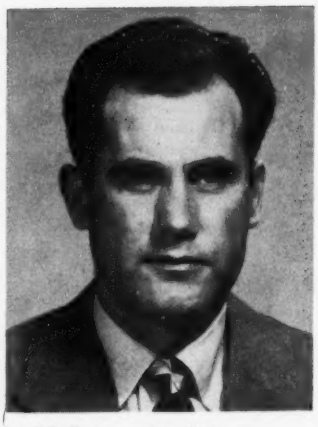
E. D. White, Economic Cooperation Administration, stressed that it is easier to hold a customer than regain one and that the U.S. must plan adequately if it hopes to meet the world's expanding needs for cotton.

Frank D. Barlow, Jr., National Cotton Council, reviewed world markets for American cotton, citing many factors favorable for continuation of strong world demand for cotton.

Winthrop G. Brown of the Department of State also described the outlook for world trade in cotton as favorable.

Texas research developments were summarized by Dr. R. D. Lewis, Texas Agricultural Experiment Station; Dr. D. E. Holcomb, Texas Technological College; Dr. A. W. Melloh, Texas Engineering Experiment Station; and Dr. A. B. Cox, University of Texas.

Dr. Walter Scott, Washington; A. L. Ward, Dallas; and Everett R. Cook, Memphis, presided at the three sessions. Increased attendance was noted at the sessions, and farmers, ginners, crushers and others praised the cooperation given by Texas A. & M. College officials and staff in Congress plans.



Field Entomologist

H. MOORE has joined Velsicol Corporation as a field entomologist, with headquarters in the southern states. He will work with federal and state experiment stations in connection with research being conducted with Velsicol insecticidal products. A graduate of Clemson College and of Texas A. & M. College, he has been associated with New Mexico Extension Service as extension entomologist and formerly was assistant entomologist in cotton insect control for the South Carolina Extension Service.

Georgia Peanut Harvester Tests Will Continue

Georgia's new-type peanut combine harvester is to be given a full test during the current harvesting season. Indications are that several of the machines will be tested on a full field basis in widely separated locations in the southeast and southwest sections of the state.

Director C. C. Murray of the Georgia Experiment Station said this week that the new combine, developed at the Coastal Plain Experiment Station, Tifton, in a joint project with USDA, green harvests at least an acre an hour under average conditions and requires only two men to operate it.

"Tests indicate that five man-hours of work on this machine equal 30 man-hours of harvesting work the old way," Mr. Murray declared. The machine picks 95 to 98 percent of the nuts from the vines.

Agricultural engineers who developed the machine are James L. Shepherd and W. D. Kenney.

Explaining the operation of the machine, Mr. Murray said that the harvester lifts the peanuts from the soil by the vines, shakes out loose soil, picks the nuts from the vines, bags the nuts and spreads the vines back over the soil in a uniform swath.

The peanuts are then dried mechanically.

"Total losses of nuts by the machine in a field producing approximately 1,500 pounds of nuts per acre were 12 percent," he reported. This compares with a 15 percent loss in the same field while getting the peanuts into the stack by the conventional method.

Officials believe most of these machine losses can be corrected and improvements on the machine are to be continued.

Mr. Murray pointed out that the machine will also harvest partially dry or fully dry peanuts from windrows at two-and-one-half acres per hour, resulting in a two-thirds reduction in harvesting costs over old methods which involve stacking. Engineers will continue tests to refine the various operations of the mechanical harvesting of Georgia's goober crop. They are now also concentrating considerable attention on the development of a farm size crop dryer which will efficiently dry not only peanuts but also corn, oats, lupine, cottonseed, hay and all other Georgia crops which may need to be dried for safe storage or marketing.

Ginners Print Booklet on Government Regulations

A complete informational booklet on current OPS, wage and hour, child labor and other government regulations which affect cotton ginners will be distributed to members of the Texas Cotton Ginners' Association about Aug. 10, Executive Vice-President Jay C. Stilley has announced.

Copies of forms that must be submitted by ginners to the various government agencies will be incorporated in the booklet, Mr. Stilley said. Prepared by the Texas association, the booklet will call attention to the fact that every ginner in the U.S. must file with OPS a report on his charges for the current season and the 1950 season. Reporting blanks which are acceptable to OPS have been prepared by the association.

The Texas association has offered this booklet to other state ginner groups, Mr. Stilley said, and copies of the booklet have been ordered by the Louisiana-Mississippi, Tennessee, Carolinas and New Mexico association.

American Egyptian Cotton Standards Are Revised

Revised grade standards for American Egyptian cotton were announced by USDA July 30. The revised standards will officially supersede two sets of standards for American Egyptian cotton now in effect, one for Pima variety and one for SXP variety.

The new standards will be effective Aug. 1, 1952, but in the meantime they may be used permissively (by expressed contract provision) in the purchase and sale of this cotton.

Two USDA Specialists Go to Liberia

Two more USDA specialists have been sent overseas on Point IV assignments. Carl C. Blickenstaff, entomologist, has gone to Liberia to assume a Point IV technical cooperation assignment in Monrovia, Liberia. He is the fourth Office of Foreign Agricultural Relations specialist assigned to Liberia to assist in developing the agriculture of that country.

Dr. Frank G. Davis, economist, has been named to serve as economic adviser to the government of Liberia. He will become a member of the U.S. government's economic mission for developing the agriculture of this west African republic.

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Argentina outranks all the other Latin American countries in the production of fats, oils and oilseeds. Futhermore, as a surplus producer of both industrial and edible oilseeds and animal fats — primarily flaxseed, sunflower seed, lard and tallow—Argentina is an important source of supplies for several West European and other countries. Because the U.S. is a surplus producer of the same or competing items, Argentina is likely to continue in its role as the major Western Hemisphere country competing with the U.S. for foreign market outlets.

In addition to the fats, oils, and oilseeds mentioned above, Argentina also produces other oils, some in very small quantity. They include peanut, cottonseed, corn, rapeseed, olive, tung, whale, sperm, fish, seal oils and butter. And the large surplus quantities of oilcakes and meals, by-products of the crushing industry, find ready markets in West European countries where the livestock industry is highly developed but where feed concentrates are in deficit supply.

Imports of Argentine flaxseed and linseed oil into the U.S. were substantial for a number of years prior to 1948. Since then, however, with large domestic production, supplies of flaxseed in the U.S. have been sufficient to meet all domestic requirements and to permit export sales. Accordingly, the U.S. has not authorized flaxseed and linseed oil imports from Argentina or elsewhere in recent years except limited quantities of flaxseed for seed use.

Most of Argentina's exportable flaxseed and linseed oil was committed for shipment by the end of April, and judging from the active demand for remaining quantities, there will be only small carryouts at the end of 1951. With all surplus stocks being liquidated this year, a sharp decline in 1952 exports will be inevitable unless the flaxseed area, only 2.7 million acres last year, is doubled in the coming season. An increase of this magnitude is not considered likely.

• **Flaxseed**—The 1950-51 flaxseed harvest has been estimated by trade sources between 22 million and 24 million bushels. According to recently published data, the area planted to flaxseed this last season was 2,680,300 acres. Abandonment was unusually heavy and only 2,045,000 acres were reported as harvested. This is the smallest area harvested in Argentina since the country first became a major flaxseed producer. Losses in 1950-51 were attributed to late frosts, excessive rains and hot drying winds during the flowering period.

• **Castor Beans and Tung Nuts**—Other industrial oilseeds produced in Argentina are castor beans and tung nuts. Castor bean output, which is roughly 8,000 tons annually, is about sufficient to meet domestic castor oil requirements and is not likely to expand or contract greatly. Tung nut production in 1950 is estimated at 45,000 tons, from which about 7,000 tons of tung oil was obtained. This was considerably less than the 60,000 tons of nuts and about 10,000 tons of oil obtained from the crop in 1949. Demand for Argentine tung oil was unusually strong in late 1949 and in 1950 with availabilities from China diminished because of the closing of Chinese ports. The dominant share of the tung oil exported went to the U.S.

• **Sunflower Seed**—Much sunflower seed was planted late this season, including some near the end of January. Trade estimates are between four and 4.4 million acres. The best evidence appears to support the higher figures, roughly equivalent to the previous record achieved in 1948-49.

Early crop yields were generally above 625 pounds per acre. Late plantings to have been harvested in May were held back by cold weather, and no recent production estimates are available. Assuming, however, that there was no exceptional loss, the production this year may be 1.1 to 1.2 million tons—about the same as the record production of 1.2 million tons in 1948-49.

Virtually no old-crop sunflower seed was carried over into the new crushing year which began on April 1.

The entire sunflower seed crop, less about 33,000 tons for seed and shrinkage, will be purchased rapidly by crushers this year. If 1.2 million tons are harvested, the oil equivalent could be about 308,000 tons. This would compare with 660,000 tons of sunflower seed crushed in the past season, producing

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about 172,000 tons of oil. Domestic requirements are considered near 175,000 tons annually, leaving potentially about 133,000 tons for export.

Shipments of sunflower seed oil in 1950 totaled 113,548 tons, roughly equivalent to the surplus carried in 1949. The United Kingdom with 83,730 tons was the principal destination.

• **Peanuts**—Trade sources are uncertain with respect to area planted to peanuts this season but apparently there may be a slight increase above last season's 250,000 acres. Growing conditions earlier were reasonably good, making possible a crop of 115,500 tons or more, unshelled basis (77,000 shelled). This would be a considerable increase from the poor crop of 1949-50 which was only about 81,000 tons, unshelled basis. Allowing 22,000 tons for seed, shrinkage, and edible use, the crushing availability this year may be 55,000 tons, equivalent to 18,700 tons of peanut oil. Only a small portion of this oil ordinarily is available for export since local demand is strong, particularly for blending.

• **Cottonseed**—Area in cotton is estimated officially at 1,249,000 acres, slightly more than the 1,206,350 acres cultivated last season. However, production was expected to be less because of cool weather and excessive rains. Total seed output was forecast at 240,000 tons, of which 220,000 tons may be available for crushing. This would be equivalent to 24,000 tons of oil. About 11,000 tons are used locally and the balance is considered exportable.

About 6,000 tons of miscellaneous other edible oils are produced annually in Argentina, including 3,000 to 4,000 tons of olive oil, 1,500 corn oil and 1,000 rapeseed oil. Practically all of these are used domestically. Acreage in olive trees has been expanding rapidly in the last decade. Consequently, expectations are that by 1960 the olive crop will be sufficient to produce more than 14,000 tons of olive oil annually—equivalent to the prewar rate of domestic consumption.

Output of all edible oils in the crushing year beginning April 1, 1951, was forecast at 358,000 tons, of which 210,000 tons may be used domestically. The probable export surplus was indicated therefore at 148,000 tons, largely sunflower seed oil but including also moderate quantities of cotton seed and other oils.

• **Cake and Meal**—Based on the estimated 1951 crushings of oilseeds, the equivalent production of oilcakes and meals can be calculated at approximately 880,000 tons. Stocks at the beginning of the year were negligible, having been depleted by large exports and increased local use during 1950. Exports alone last year were 1,091,560 tons, mainly to the United Kingdom, France, Denmark, Netherlands and Belgium.

This year the exports necessarily will be less than in 1950, probably not exceeding 770,000 tons. Shipments in January 1951 were 75,469 tons, which is far more than the average monthly rate to be expected this year. Exports in February fell to 19,126 tons.

• In one year (1947) U.S. margarine manufacturers used 322,551,000 pounds of cottonseed oil—or the oil yield from 6,085,868 acres of cotton land.

USDA, Oklahoma A. & M. to Test Cottonseed Flour

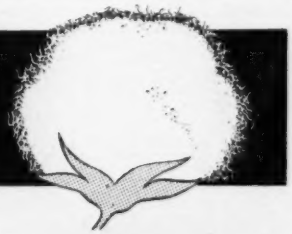
The Okmulgee Branch of Oklahoma A. & M. College, Okmulgee, Okla., has contracted with USDA to investigate the use of cottonseed flour in baked products. The study will be made under the supervision of the Southern Regional Research Laboratory, a unit of the USDA's Bureau of Agricultural and Industrial Chemistry, in New Orleans.

The Southern Laboratory, in cooperation with the cottonseed oil industry, National Cottonseed Products Association, state experiment stations, and other USDA agencies, has demonstrated experimentally that cottonseed meals of superior nutritive value can be produced in regular commercial mills.

Under the contract, the Okmulgee Branch of Oklahoma A. & M. will work out procedures for incorporating this improved cottonseed meal, and other available cottonseed flours, in bread, rolls, cakes, sweet dough products, doughnuts, cookies and other baked foods. When satisfactory formulas have been developed, the new baked foods will be evaluated by a taste panel and the most acceptable ones selected for tests of consumer acceptance by other agencies, including the armed services.

These investigations, financed by funds from the Research and Marketing Act, will be part of USDA's overall program to improve the utilization of cottonseed.

Defoliate



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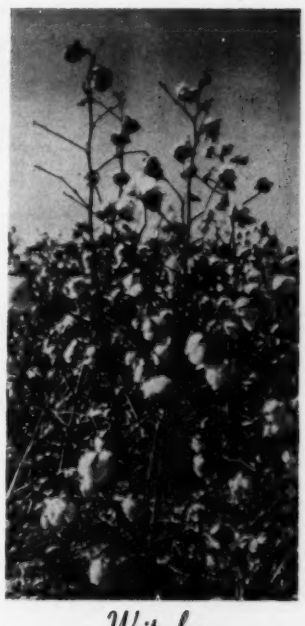

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Oil Mill Equipment for Sale

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FOR SALE—72-85" cookers, rolls, formers, cake presses and parts, accumulators-pumps, hull-packers, Bauer No. 153 separating units, bar and disc hullers, beaters-shakers, Carver linters, single box baleing presses, filter presses, expellers, attrition mills, pellet machines, pheumatic seed unloader. If it's used in oil mill, we have it. V. A. Lessor and Co., P. O. Box No. 108, Fort Worth, Texas.

OIL MILL MACHINERY FOR SALE—We have for sale 24 French hydraulic presses, 14 boxes each, seven-eighth inch plates; 2 French hydraulic formers; 1 set 12 ton high and low pressure accumulators; 2 French hydraulic pumps. All in A-1 operating condition. Delivery after January 1, 1952. Can be seen in operation at our mill this fall.—The Union Oil Mill, Inc., West Monroe, La.

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FOR SALE—One Davison-Kennedy cake former. One Davison-Kennedy six plunger high pressure pump. One Davison-Kennedy low pressure pump. One Davison-Kennedy accumulator. — Farmers Products Co., Inc., 442 Smith Ave., Thomasville, Ga.

FOR SALE—One Mitchell 6-cylinder Jembo, combination extractor, drier, and cleaner. 4-80 Continental model "C" A.B., D.C. air blast gins with model "30" fronts, lint flue. Eight 66" cast-iron head standard Mitchells. A bargain: Murray big reel drier. One Continental trough type drier. One Continental 10', 6-cylinder, all steel after cleaner. One Hardwicke-Etter 11-shelf stub tower drier with 5-cylinder steel after cleaner, drier, burner, and fan. Three 14' Hardwicke-Etter wood bur machines with by-pass conveyors. One 14' Wichita steel bur machine. One American steam hydraulic pump. 4-80 Continental D.C. A.B. model "F-3" gins with roll indicators, factory rebuilt and painted at the Continental Gin Company of Dallas, with lint flue. One 45" Continental cast-iron fan, reworked and repainted. One Murray tramper. Five 60" Hardwicke-Etter huller feeders. Six 80-saw A.B. D.C. all steel Cen-Tennial commandor gins with lint flue. Five 60" Continental triple-X huller cleaner feeders. Four 80 saw Murray gins with glass fronts and 6" mote conveyors, lint flue. One 80-saw Murray gin with glass front and 6" mote conveyor. One 80-saw Continental brush gin, model "E." Five 66" convertible Mitchells. One 12-section thermo cleaner. One 50" Lummus multi-blade fan.—Bill Smith, Abilene, Texas, Box 694. Phones 4-9626 and 4-7847.

FOR SALE—Used expellers, French 3 and 4 cage, Anderson No. 1 parts, new and rebuilt. Rebuilding of screw press parts.—Sanford G. Smith & Company, 126 East 4th Street, Chester, Pa.

FOR SALE—Bauer Bros. 199 seed cleaning unit 60" trays, French center drive 4 throw hydraulic pump, French cake trimmer..—V. A. Lessor & Co., P. O. Box 108, Fort Worth, Texas.

FOR SALE—Two vertical Rotor Lift screw conveyors, 36 ft. high, 9 in. in diameter, both with intake hopper and top drive. Excellent condition. —Edgewood Milling Co., Edgewood, Texas.

FOR SALE—One used Helm junior size pellet machine. This machine may be inspected at our mill plant here in Colorado City, Texas.—Continental Oil-Cotton Company.

FOR SALE—One 5-80 saw Continental gin battery complete. All modern cleaning and drying equipment, with lint cleaners. Has 600 h.p. LeRoi natural gas engine. All steel building with double suction wagon shed.—Bishop Cooperative Gin Co., Bishop, Texas.

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4—200 hp. 3/60/2200/900 rpm, slip ring	1—100 hp. 3/60/2200/900 rpm, squirrel cage
6—200 hp. 3/60/440/900 rpm, slip ring	2—100 hp. 3/60/220/900 rpm, squirrel cage
4—150 hp. 3/60/2300/900 rpm, slip ring	4—100 hp. 3/60/2200/900 rpm, slip ring
2—150 hp. 3/60/440/900 rpm, slip ring	2— 75 hp. 3/60/440/900 rpm, slip ring
3—125 hp. 3/60/440/900 rpm, slip ring	2— 75 hp. 3/60/220/1200 rpm, squirrel cage

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FOR SALE—New "Exact Weight" sacking scale, Ser. 222362, capacity 200 pounds. Gruendler size No. 3 cake breaker.—Delta Oil Mill, Jonestown, Miss.

FOR SALE—Oil mill equipment including Anderson expellers and French screw presses.—Pittock and Associates, Glen Riddle, Pa.

Gin Equipment for Sale

FOR SALE—3 rebuilt 80-saw Murray gins, never been used. In factory crates. A bargain if you need three gins same as new.—Farmers Cotton Oil Company, Wilson, N. C.

FOR SALE—60-saw Continental B. B. Wood mattress gin with hopper. Practically new. In first-class operating condition. Will take cotton or linters in trade instead of cash if preferred.—Sealy Mattress Company, 3841 East 37th St., Cleveland 15, Ohio.

ALL STEEL GIN BUILDINGS, any size. For immediate delivery in Texas.—Marvin R. Mitchell Construction Co., 1220 Rock Island, Dallas, Texas, Phone RAndolph 5615.

FOR SALE—Three Continental double x huller-cleaner-feeder extractors with after cleaners, size 70, model "C"—J. E. Little Estate, Conway, Ark.

FOR SALE—Four 70-saw Lummus air blast, direct connected ball bearing gins complete with 120 h.p. Fairbanks full deisel engine and Lokey hull extractor. Will sell all or any part. Gins in perfect shape. Also, four 80-saw Continental AA Munger air blast ball bearing stands, like new. One Continental Paragon bale press with 3 stroke pump and Jacobs tramper.—R. A. Krumme, Box 749, Bristow, Okla.

GOVERNMENT TYPE dryers delivered and erected in your gin plant. See advertisement on page 32 this issue.—Service Gin Co., P. O. Box 21, Ville Platte, La.

GOOD USED MACHINERY—One Model PH Murray steel bound press, two Continental presses, all in plants where used. One 72" Continental all steel, square type, up draft condenser. One 60" Lummus wood frame condenser, excellent condition. One 14 foot Hardwicke-Etter and one 14 foot Wichita wood frame bur extractors. Three 66" Continental model "D" Double X extracting feeders. Five 80-saw Murray steel 6" mote conveyor air blast gins. Fans, hydraulic rams and casings, hydraulic pumps, shafting, pulleys, belting and transmission equipment. Tell us your needs.— R. B. Strickland & Co., 13-A Hackberry St., Tel. 2-8141, Waco, Texas.

Equipment Wanted

WANTED—One hundred h.p. slip ring electric motor with starter. One fifteen horse 865 r.p.m. gas burner for dryer.—Orb Coffman, Goree, Texas.

WANT to buy cotton gin.—Wallace Bohannon, Box 991, McAllen, Texas.

Personnel Ads

HELP WANTED—Ginner for new Murray-Mitchell Supers and Super gems who can assume responsibility for operation and help. Four room modern house furnished. Year-around job. Good schools. Also four ginners for night jobs, starting September 1st. Give references.—Box 548, Artesia, New Mexico.

WANTED—Immediately—industrious, sober night superintendent. Contact Mr. G. D. Wolfenden, general superintendent.—Seguin Cotton Oil Company, Seguin, Texas.

QUALIFIED GINNER wanted on straight time or hourly basis to take complete charge of operating four stand Murray-Mitchell gin. Start approximately Sept. 1 to Jan. 1. Modern house furnished without charge.—Apply Box "AZ," The Cotton Gin and Oil Mill Press, P. O. Box 444, Dallas, Texas.

WANTED—Experienced ginner and repairman for gin, elevator and cottonseed delinter. Year round job for right man. Give qualifications and salary expected.—Write J. W. Goode, Mangum, Okla.

Power Units and Miscellaneous

ALL STEEL BUILDINGS for cotton industry—warehouses, cottonseed houses and gin buildings. —Marvin R. Mitchell Construction Co., 1220 Rock Island, Dallas, Texas. Phone RA-5615.

FOR THE LARGEST STOCK of good, clean used gas or diesel engines in Texas, always see Stewart & Stevenson Services FIRST. Contact your nearest branch.

FOR SALE—Immediate delivery any weight or width filter cloth or paper, numbered Duck, Filter Twills and Chain cloth.—S. A. Orrell, P. O. Box 2351, Memphis 2, Tenn.

POWER—One 120 h.p. and one 80 h.p. Fairbanks-Morse, type "Y," style "VA" diesel engines, both with equipment, on foundations, in good operating order. One model RX1, 100 h.p. LeRoi power unit, gasoline engine starter, fully equipped. One 35 h.p. Minneapolis-Moline 4-cylinder power unit, steel housing, electric starting systems, etc. One 60 h.p., 2200 volt, 865 r.p.m. slip-ring motor with starting equipment. One 50 h.p. G.E., 220 volt, 1200 r.p.m. squirrel cage motor. 440 volt G.E. motors with starters: one 100 h.p., 900 r.p.m., one 10 h.p., 900 r.p.m. and one 15 h.p., 1750 r.p.m. New Buda engines available.—R. B. Strickland & Co., 13-A Hackberry St., Tel. 2-8141, Waco, Texas.

FOR SALE—Various items, new H 78 and H 82 drag chain with attachments every fifth link and sprockets, roller chain and sprockets, V-Belts and sheaves, bearings, all types and sizes; leather and rubber belts, conveyor and trough, fabricated steel bins, etc.—S. A. Orrell, P. O. Box 2351, Memphis, Tenn.

FOR SALE—One 180 h.p., two 240 h.p., one 360 h.p. Fairbanks Morse diesel engines. Suitable for gins or oil mills.—A. C. Askew, Box 3073, Whittier Sta., Tulsa 8, Okla., ph. 6-6120.

AVAILABLE for immediate delivery from Dallas stock, three Sepco seed conveyors, available with or without gasoline or electric motor.—Dillon Seale & Equipment Co., 2907 Elm Street, Dallas, Texas.

FOR SALE—New and rebuilt Minneapolis-Moline power units in stock, all sizes. Sales, parts and service, day or night.—Fort Worth Machinery Co., 913 E. Berry St., Fort Worth, Texas.

ENGINE BARGAIN FOR PARTS—125 h.p. Tips 3-cylinder vertical, semi-diesel engine with stub-shaft on foundation near Waco. Operating nicely when last used. $500.00 on foundation, if sold immediately.—R. B. Strickland & Co., 13-A Hackberry St., Tel. 2-8141, Waco, Texas.

FOR SALE—One Worthington 5-cylinder diesel engine, 110 h.p. at 3750 ft. alt. 514 r.p.m.—Western Cottonoil Co., Pecos, Texas.

FOR SALE—One 16 x 15" Skinner center crank automatic steam engine on cast iron sub-base and all regular fixtures and 66" x 16" flywheel, one 2-15/16" face coupling.—Union Cotton Oil Co., Prague, Okla.

FOR SALE—One 40 h.p., 220 volt, 900 r.p.m., three-phase electric motor with starter switch. One 50 h.p., 220 volt, 1800 r.p.m., three-phase electric motor with starter switch. One 125 h.p., 2300 volt, 900 r.p.m., rebuilt slip ring electric motor with sliding base and starter equipment. One 30 h.p., 2300 volt, 1800 r.p.m., sliding base and starter equipment.—Bill Smith, Abilene, Texas, Box 694. Phones 4-9626 and 4-7847.

Dr. Trelogan Is Assistant ARA Administrator

Appointment of Dr. Harry C. Trelogan as assistant administrator of the Agricultural Research Administration has been announced by Dr. P. V. Cardon, USDA research administrator.

In his new position Dr. Trelogan will be responsible for marketing work under the Research and Marketing Act, previously directed by Dr. Omer W. Herrmann, who resigned June 1 to head the Department of State's agricultural work at the American Embassy in Paris.

Southern Lab Lists Reports on Sesame

Extensive basic and technological data on sesame seed and oil have been reported in 10 technical articles since January 1950 by USDA chemists, the Southern Regional Research Laboratory, New Orleans, La., has announced. This information will be of value to oilseed processors in the Cotton Belt in the event the crop is grown on a large scale as a supplement or alternate raw material for cottonseed.

The data are the result of investigations at the Southern Laboratory, where the work was part of a broad program of research being conducted by USDA agencies and state agricultural experiment stations to develop varieties of sesame better suited to American farming and to obtain increased knowledge of the chemical composition and characteristics of the seed.

Sesame seed and oil are well-known commodities in international trade, and quantities of both are imported into this country, but the seed has not been produced extensively here, mainly because of harvesting difficulties. Some of these difficulties are being met through the development of nonshattering varieties. Under good cultural practices the crop yields 800 pounds or more of seed per acre and more oil per acre than any other annual oilseed crop —per 100 pounds of seed, 47 pounds of an edible oil equal or superior in quality to cottonseed and peanut oils.

Besides being rich in oil, sesame seed yields a meal which is a nutritious stock feed, containing 45-55 percent of high quality protein. Also, the seed has superior ualities from the standpoint of the processor—it requires no preparation other than cleaning before milling and it is easily processed in conventional oil milling equipment.

In Southern Laboratory research, oil was recovered from four varieties of seed by batch solvent extraction, physical and chemical analyses were made and each oil was evaluated for use as a salad and cooking oil and for the production of shortening. The crude oil was low in free fatty acids, very light in color, had low refining losses and bleached well. Hardened to shortening consistency, the product showed great stability toward oxidative rancidity. The superior stability was shown to be due to sesamol, a unique component of the seed. A method for determining the free and bound sesamol was developed. Also worked out was a method of determining the amount of sesamin, another unique minor component of sesame oil.

The processing and utilization research on sesame oil at the Southern Regional Research Laboratory is the first systematic chemical investigation of the oil to be recorded. Publications on the work have aroused the interest of vegetable-oil manufacturing firms in almost every part of the world. This series of articles represents more than one-tenth of the technical literature in English on sesame oil. The reports include the most comprehensive review, 254 references, which has yet been made of the literature on sesame oil throughout the world.

Reprints of the articles may be obtained by writing the Southern Regional Research Laboratory, 2100 Robert E. Lee Blvd., New Orleans 19, La. The publications are entitled: Sesame Oil. I - VII: Properties of a Solvent-Extracted Sesame Oil; Some Chemical and Physical Properties of the Oils from Different Varieties of Sesame Seed; Antioxidant Properties of Sesamol; Determination of Free and Bound Sesamol; The Stability of Sesame Oil; Determination of Sesamin; Optical Rotation and the Minor Components of Sesame Oil. The Chemical and Physiological Properties of Sesame Oil. Some Physical and Chemical Properties of Sesame Protein. Sesame—A New Oilseed Crop for the South (June 10, 1950, issue, *The Cotton Gin and Oil Mill Press*).

Three Fires Damage Cotton at Edinburg

Three fires within 12 hours caused an estimated $8,000 in damage to cotton at Edinburg, Texas, last week.

Two bales of cotton were destroyed and eight others were damaged in a boxcar fire. Approximately $100 of cottonseed was damaged in a fire at one gin, and about $50 of damage was caused to a bale of cotton by a fire at another gin.

New Publication:

TEXAS A. & M. BULLETIN ON SOLVENT EXTRACTION

A bulletin entitled "Solvent Extraction of Cottonseed Oil With Isopropanol," by W. D. Harris and J. W. Hayward, has been published by the Texas Engineering Experiment Station of Texas A. & M. College. Mr. Harris is research engineer and Mr. Hayward is research assistant at the station.

Based on cooperative research on cottonseed processing by the Texas Engineering Experiment Station and the Cotton Research Committee of Texas, the bulletin describes the extraction procedures used in the tests, analyzes the products produced by this method of extraction and compares them with those produced by other processing methods, and analyzes the cost factors involved in each method.

Engineers Tell California Cotton Research Needs

Satisfactory weed control was named recently by research engineers of the U.S. Cotton Field Station, Shafter, Calif., as the biggest drawback to complete mechanization of cotton production in that state's high-producing San Joaquin Valley.

Speaking before the annual meeting of the American Society of Agricultural Engineers in Houston, Texas, last month, J. R. Tavernetti, California Agricultural Experiment Station, and B. B. Ewing, USDA, said that the rapid expansion of use of mechanical pickers to harvest cotton has accentuated the need of research to bring cultural practices up to the mechanical level of harvesting. They said that about half of California's estimated 1¼ million cotton acres will be harvesting with some 3,000 mechanical pickers this year.

If a satisfactory method can be devised to eliminate hand hoeing, it will not only cut out labor for that job, but also will make possible the elimination of hand thinning of young cotton plants. The cotton, then, could either be drill planted to a stand or thinned with mechanical choppers.

Here is the way the engineers size up currrent weed control possibilities for cotton:

1. Pre-emergence chemical weed control (spraying before the plants are above ground) shows little promise in California, despite encouraging results in other areas. Use of chemical sprays after the cotton is up may be practical, but more study is needed on their application and effectiveness before they can pay for their use.

2. No one type of mechanical cultivator proved better than another, but the use of special equipment after the normal cotton "lay out" period did provide promising control of late weeds. By modifying a high-clearance picker tractor and shielding its wheels to prevent damage to the cotton plants the engineers were able to control weeds for a month after the time normal mechanical cultivation stopped.

3. Flame weeding, in combination with mechanical cultivation, shows considerable promise, and may become a common practice in California's cotton fields.

The two engineers also reported that cotton which is hill-dropped to a stand and not thinned requires twice as many plants per acre to furnish yields comparable to hand thinned cotton.

Drilling seeds at regular intervals is preferable to hill dropping two or three seeds every 12 inches, they believe, because with continuous drilling it takes only about 60 percent as much seed per acre to get comparable yields.

Results of 21 different defoliants proved erratic, indicating a need for more information concerning time of application and plant condition to improve the results of this important cultural preparation for mechanical harvesting.

FACT..

for Advertisers:

This publication works only for gin and oil mill men. It is the exclusive publication of these processing branches of the cotton industry, edited only for the men who use your product in their operations.

USDA Study Shows Mills Can Cut Operating Costs

Cottonseed processors can make a contribution to the nation's needs during the present emergency by improving their operations so as to increase production of oil and linters per ton of seed and to hold down costs, USDA declares in a report on "Distribution of Marketing and Processing Costs of Cottonseed Oil Mills, 1948-49 Compared With 1947-48," released last month.

There is room for such improvement, the department says on the basis of a study of the industry's processing and marketing costs. The study shows wide differences between mills in processing costs per ton, indicating that many mills can cut expenses and improve production efficiency. "In doing this," the department adds, "they will be helping to economize in the use of the nation's labor and material supplies, and improving their own position at the same time."

The report covers individual items of cost in cottonseed processing and marketing for the 1948-49 season. It includes comparisons with costs in the preceding season, which were discussed in an earlier report. The study was made by the Fats and Oils Branch of the Production and Marketing Administration with Research and Marketing Act funds. The PMA study was largely based on data made available by the National Cottonseed Products Association.

The report should be of particular interest to mill operators, ginners and cotton growers in analyzing the necessary spread between prices received and paid for cottonseed and the prices paid by the consumers of mill products. Mill operators may compare their operating results with average-cost, high-cost or low-cost mill groups in their industry for each major area. A copy of the report may be obtained from the Office of Information Services, Production and Marketing Administration, U.S. Department of Agriculture, Washington 25, D. C.

From our Washington Bureau

By FRED BAILEY
and DON LERCH
Washington Representatives
The Cotton Gin and Oil Mill Press

BAILEY

LERCH

• **Two-Directional Price Squeeze Possible**—The new price control law leaves cotton in the uneasy position of a possible price squeeze from two directions. Wording of the law would permit OPS to roll back raw cotton ceilings by about 6.4 cents per pound or to squeeze prices through dollars and cents ceilings on finished textiles.

Cotton state congressmen, however, say they have a firm commitment from OPS that it will not tinker with ceilings on 1951-crop prices. The feeling here is that OPS will live up to that promise. But OPS intends to review price orders for 1952 and any revision would more likely be downward.

The new law sets up three standards for establishing ceilings on agricultural products. Ceilings may not be lower than the highest of these: Parity, 90 percent of the May 19, 1951, price, or the highest price prevailing between May 24 and June 24, 1950.

For cotton the highest of those is 90 percent of the May 19 price. That figures out at 39.35 cents per pound, or 6.4 cents under the present ceiling of 45.76 cents for 15/16 inch middling. Actually, there appears to be little possibility of a rollback in prices since most officials believe spot cotton prices this fall will be below the minimum price at which ceilings could be established under the new law.

• **Export Restrictions Likely to Be Lowered** — The Department of Agriculture right now is more concerned about keeping cotton prices from going too low than in any change in ceiling. It hopes to keep prices at least up to parity, expected to range between 33 and 34 cents. The July 15 parity was 33.85 cents, compared with an average market price of 39.11, according to USDA figures.

One of the first steps probably will be to relax or remove export restrictions. A decision on this is to be made after the August 8 Crop Board report. Unofficial thinking now is that a report indicating a crop of 16 to 17 million bales would result in a relaxation of export quotas, at least by dropping country-by-country allocations.

An indicated crop of 17 or more million bales would, according to present thinking, likely lead to removal of all export restrictions. That step, however, more probably would be delayed at least until the September report confirms the larger crop.

The Department already has set quotas for the 1951 crop at 3,500,000 bales, but that is only the minimum. Officials here think it is sure to be raised.

• **Much Cotton May Go Under Loan**—Cotton officials are not optimistic that easing of export restrictions will have much of a bolstering effect on prices. They point out that competitive world prices are down sharply from last spring and that foreign buyers are becoming far more cautious on commitments.

The department hopes that ECA will increase buying and make early purchases for overseas shipment. Officials likewise are talking of stockpiling by the government to meet future needs. It has been suggested that the government buy cotton at not less than parity for future export.

Cotton state congressmen are showing renewed interest in a bill by Sen. Eastland of Mississippi to set up a $500-million revolving fund to finance government purchase of "depressed" agricultural products.

The Commodity Credit Corporation,

(Continued on Page 48)

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In South America

Maid Jeannine Gets Big Latin Welcome

Throngs of cheering Montevideans greeted the 1951 Maid of Cotton, Jeannine Holland, when she arrived at the city airport after a flight over the snow-capped Andes mountains from Santiago, Chile, during her goodwill tour of Latin America.

On the first night of her stay in Uruguay, Miss Holland and her party were guests of the Alpargatas Mills in a reception at the Club Uruguay and of Sr. E. Subirana, Anderson, Clayton & Co. representative, at dinner at the restaurant El Aguila.

During her visit in Uruguay the Maid of Cotton made an appearance at the international football game between the championship teams of Brazil and Uruguay to present the annual ward to the winning team before a crowd of 60,000. Before the game Maid Jeannine was honored at a luncheon given by Uruguayan textile manufacturers at the Montevideo Golf Club.

One evening during her stay the Maid presented her all-cotton wardrobe, along with locally designed cottons, before an audience of more than 1500 at the Cine Plaza, one of the city's largest motion picture houses.

She toured the cotton mills of the S. A. Fabrica Uruguay Alpargates and visited the first cotton mill built in the Uruguayan republic.

The Maid's visit to Montevideo was recorded on film by the national newsreel company for showings at theaters throughout the republic. She also carried the goodwill message of the U.S. cotton industry to radio listeners in a special broadcast through Radio El Spectador. The comely cotton courier attended a banquet and dance commemorating the independence of the United States at the Parque Hotel, one of the favorite summer resorts.

Before arriving in Montevideo, the Cotton Maid had been through a whirl of activities in Santiago, Chile. There she received a royal welcome and was feted by the textile industry, members of the Chilean government, department store executives, and officials of the U.S. Embassy. She was guest of honor at a reception given at the Union Club by Braniff International Airways, one of the sponsors of her South American tour in cooperation with the National Cotton Council. The reception also was the occasion for the Chilean celebration of Braniff's twenty-third birthday.

The Maid of Cotton was officially welcomed to Santiago by William Osborne, executive head of the cotton textile association.

In Santiago, Maid Jeannine modeled her wardrobe of winter cottons for social leaders of the city, where winter is now in progress. She was entertained at the several cotton mills. Cotton industry leaders honored the goodwill emissary at a luncheon at the Club de los Leones and at a farewell dinner at the Sarao, a Chilean club, where typical native dishes were served.

The Maid's program in Santiago was planned by members of the Chilean cotton industry.

Before visiting Santiago, the Maid of Cotton was the guest of Braniff Airways and the cotton industry of Argentina during a four-day stay in Buenos Aires. Every moment of her visit was filled with activity. She showed her smart winter cottons at a reception staged at the Plaza, and later modeled her cold-weather cottons at Harrod's, the country's largest department store.

In Argentina, the Maid was guest of honor at a reception given by James E. Bowers, second secretary of the American Embassy, and also at a dinner-dance at the Embassy with U.S. Ambassador and Mrs. Bunker as hosts. She was honored at a luncheon by John T. Long, Argentine manager of Braniff, with civic leaders of Buenos Aires as guests.

During her stay she was the luncheon guest of cotton industry leaders and visited the National Livestock Exposition and other famous points of interest.

On her cotton goodwill and fashion tour, the Maid visited eight Latin American nations. After her stop at Montevideo, her schedule included visits in Rio de Janeiro and Sao Paulo, Brazil, and Havana, Cuba. She returned to Houston, Texas, July 19.

Arizona Mill Changes Name, Plans Expansion

A million-dollar expansion and improvement program by the Producers Cotton Oil Co. of Arizona, formerly the Agricultural Products Co., was announced last week by James B. Mayer, vice-president and general manager. The name change was disclosed at the same time.

The program, now under way, will bring the Phoenix cottonseed oil mill to an 80-000-ton-per-year capacity. It provides for the construction of new gins at Eloy and Queen Creek; and the remodeling and addition of equipment to gins at Coolidge, Chandler, Stanfield, Picacho, Eloy, Sahuarita and Marana.

Three gins at Marana, one long and two short staple, have been purchased by Producers. The company will also operate the new growers gin at Casa Grande and the new R. G. James gin at Amado in Santa Cruz County.

The expansion and improvement of facilities are being made to meet greater cotton processing demands in the state which should arise from the anticipated record-breaking cotton crop this year, Mr. Mayer said. Some 560,000 acres, over half the cultivated land in Arizona, are planted in cotton, nearly twice the acreage of the previous high year of 1950.

The company was established in 1937 by P. E. Tovrea and Kemper Marley. In 1950, Producers Cotton Oil Company of California purchased the company.

• About 84 million acres of corn were grown in the U.S. in 1950.

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USDA Studies Trade With Latin America

The Latin American countries, as a group, continue to be deficit in edible fats and oils, especially in animal fats, USDA reports in a survey of fats and oils production and trade in Latin American countries. On the other hand, the area has exportable surpluses of inedible oils and oilseeds. Thus, in general, these countries provide a substantial market for edible fats and oils from the U.S. and a source of supply for certain industrial oils.

Against these generalizations, however, there are certain limitations against large-scale trading. In the first place, per capita consumption of fats and oils traditionally has been low in Latin American countries by U.S., Canadian and European standards. Secondly, there is a fairly widespread movement toward self-sufficiency in fats as a means of conserving foreign exchange. This course of action frequently has resulted in tariffs, import quotas and other trade barriers that restrict imports from the U.S. and elsewhere. Conversely, the largest exportable items in the fats and oils group from Latin America are flaxseed and linseed oil, which have not been permitted to enter the U.S. in recent years because of large domestic supplies.

In 1950, U.S. imports of fats and oils from Latin American countries consisted principally of (1) castor beans, mainly from Brazil but also from Haiti, Ecuador and El Salvador; (2) castor oil, principally from Brazil with small quantities from Paraguay, Uruguay and Angentina; (3) tung oil, mainly from Argentina, but some from Brazil and Paraguay; (4) sesame seed, mainly from Nicaragua, but also from El Salvador, Guatemala and a few other Latin American countries; (5) oiticica oil from Brazil; (6) babassu kernels and oil from Brazil; and (7) tucum nuts from Brazil.

Brazil, because of the importance of castor beans and castor oil, led by a wide margin in exports to the U.S. And Brazil is the only source in the world of oiticica oil and babassu oil and kernels.

In terms of exports to all countries, Argentina had the largest volume because of its large exportable surpluses of flaxseed and sunflower seed. In general, Argentina, Brazil, Uruguay, Faraguay, Nicaragua and El Salvador may be considered the only countries with an export balance in 1950. Costa Rica, Honduras and the Dominican Republic were about self-sufficient, with a small import balance. Mexico also achieved a near-balanced position with exports, mainly flaxseed and peanuts, roughly offset by imports of animal fats, mainly lard.

In terms of a market for fats and oils from the U.S., these countries are particularly important in the case of lard. Cuba, for example, which took 69,402 short tons of U.S. lard in 1950, has been the largest single foreign destination in recent years. Of total lard exports of 233,042 tons in 1950, 109,134 tons, or nearly 47 percent, was consigned to Latin countries in North and South America. This percentage figure is only a little smaller than that for 1949, although total U.S. lard exports were down sharply because of a 40-percent decline in sales to Europe.

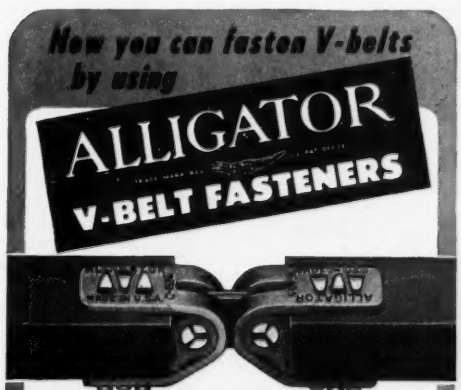
The U.S. also exports inedible tallow to a large number of Latin American countries and, on a volume basis, its importance is exceeded only by lard. These countries also provide sizable export outlets for butter, peanuts and peanut oil, cottonseed and cottonseed oil, soybean oil, fish oils, and finished products manufactured in the U.S. from fats and oils. The future of this market for the U.S. will depend on trends of consumption, the success of domestic expansion programs and the availability of supplies from alternative foreign sources.

USDA Sends Specialists To Peru and Brazil

The U.S. Department of Agriculture has announced that Dr. Donald S. Hubbel, agronomist, has been assigned to a Point IV technical co-operation post in Peru. The assignment is made at request of the government of Peru and in cooperation with the Technical Cooperation Administration, U.S. Department of State.

Assignment of Lewis E. Long, farm management specialist, to Brazil, where he will serve as an instructor in use of animal power and animal-drawn machines at Brazil's Training Center for Rural Engineering located at Fazenda Ipanema, State of San Paulo, has been announced by USDA.

• What we know as "paper" money is actually 75 percent cotton fibers.



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Bulletin V-211 gives complete details. A copy mailed on request.

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Stoneville, Mississippi

Washington Bureau

(Continued from Page 45)

if prices start dropping very much, likely will launch an intensive campaign to get farmers to put their cotton under loan and hold it. Officials think many farmers can be persuaded to take loans at below market prices. The new loan rate at 90 percent of parity is 31.71 cents per pound, 15/16 inch middling.

• **Control Law May Be Administration Victory**—The impression here is that the administration may have won an important tactical victory in the new price control law. It will be easier now to shift the blame for inflation, if it comes, to Republicans and southern Democrats in Congress.

The administration propaganda machine may have convinced the country that Congress gutted the control law, leaving the controllers virtually powerless to deal with inflation. Control officials here at least hope that is the case. Inflation, then, would make it easier to defeat congressmen who voted against stronger controls.

Actually, the pluses and minuses of the new law add up to about the same over-all powers as in the original Defense Stabilization Act. Congress took away rollback powers, eased credit restrictions and prohibited slaughter controls. But it strengthened the hand of enforcement officers.

Administration "losses" were largely in not getting the much stronger powers it asked for. Chiefly, these were authority to require all business to obtain and operate under a revokable government license, permission to pay subsidies to farmers in lieu of higher ceilings and a year-at-a-time freeze of farm parity.

• **1952 Politics — "Vindication" Campaign?**—Insiders say President Truman is bitter toward "uncooperative" congressmen who failed to back his request for stronger control powers. He is said to feel that southern Democrats, who occupy most of the positions of leadership in Congress, let him down.

Seasoned political advisers, however, are cautioning him not to lose his temper and name names. They tell him that if the 1952 general election should be close he can't afford to offend too many Democrats, whether or not he likes either their personal or political views.

The President, however, is reported to be determined to carry his social and economic views into the 1952 political arena and let the chips fall where they may. It is not yet certain whether Mr. Truman will seek re-nomination, but close friends say he has "his back up" and may decide to run on a "vindication" platform. If Republicans nominate Bob Taft, as some here think they will, Mr. Truman is more likely to seek the Democratic nomination.

• **Fear Is Policy Line**—All of this uncertainty—political, economic and military—has given Washington that bewildering "anything can happen now" feeling. The Capital has lived for so long in a constant state of "emergency" of one kind or another that the senses have become dulled.

Washington has lived in such a state of high tension for so long that there is bound to be a let-down sooner or later. It is just such a let-down that top government officials fear most. They think Russia knows this country pretty well and that that is just what it is working toward in putting out peace feelers.

So, look for a trip-hammer series of official statements designed to keep the public excited and scared. The administration will play up fear—of Russia and of inflation. That is to be an established policy line.

U. S. Fats and Oils Trade Is Larger Than in 1950

Exports from the U.S. of fats, oil and oilseeds in April and May, considerably larger than in the corresponding months of 1950, have boosted the total export volume for January-May 1951 to 929.3 million pounds, oil equivalent. Thus for the first five months of this year exports exceeded the 905.8 million pounds, in terms of oil, exported in the first five months of 1950.

Imports into the U.S. in April and May, substantially greater than in the corresponding two months of 1950, brought the import volume of the January-May period to 605.1 million pounds, oil equivalent, nearly one-third more than in the first five months of 1950.

A comparison of the data for the first five months with data for the first quarter of this year reveals that the monthly rate of exports from the U.S. has expanded while the rate of imports has contracted.

The expanded total volume of exports in the first five months of this year as compared with the January-May period of 1950, while only three percent greater, came about chiefly because of relatively large increases in the shipped tonnage.

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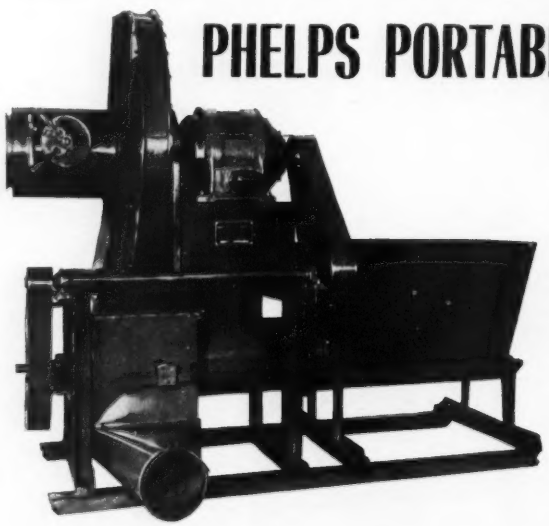

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of soybeans, refined soybean oil and inedible tallow, and a significantly greater tonnage of lard. Partially offsetting theese gains, however, were the relatively drastic cutbacks in the exported quantities of crude soybean oil, cottonseed and cottonseed oils—particularly the crude—peanuts and peanut oils—again, particularly crude—and the fatty vegetable acids.

The nearly one-third increase in the total volume of imports in the first five months of this year compared with January-May 1950 is accounted for principally by the relatively sharp expansion in receipts of babassu oil, castor oil, copra and coconut oil, oiticia oil, palm oil and "all others." On the other hand, there was a sharp decline in the imports of babassu kernels and there were substantial reductions in castor bean and tung oil imports.

Cochabamba Mill to Up Bolivian Oil Output

Bolivia, a country of roughly four million inhabitants, mostly rural, is a deficit producer of edible fats and oils. Though the Bolivian diet is notably deficient in fats, only small quantities of edible oils and lard are imported annually. This country ceased to import oilbearing seeds at the close of 1945 and now depends on domestic sources for its raw materials.

Although oilseed production data for Bolivia are not available, the principal raw material used is the Brazil nut from the tropical lowlands of the Beni and Pando districts. Peanuts, sunflower seed and flaxseed produced in other regions of the country are also used by the crushing industry. In addition, there is some production of lard.

Production of edible oils during 1950-51 is expected to approximate 770 short tons, over twice the estimated production of 330 tons in 1949-50. The anticipated increase in output is based on the opening in December 1950 of a large edible oil factory at Cochabamba. Expectations are that by the end of 1951 the factory's production will be sufficient to meet Bolivia's edible oil requirements of about 880 tons per year.

Production of lard, largely a home industry, has been estimated at about 720 tons for 1950-51. This is approximately the same as the volume produced in 1949-50.

Imports of edible oils were expected to be only about 110 tons in 1950-51, a sharp decline from the 550 tons imported the year before. Imports of lard in recent years have averaged about 1,930 tons. With consumption of lard estimated by the Ministry of Economy to be 2,650 tons in a normal year, it is apparent that imports comprise the major share of the quality consumed. Lard imports may be reduced in future years because of the expansion of the edible oil industry.

Production of animal fats for domestic use in Bolivia probably could be expanded since the livestock industry there is important.

Mother of T. C. Potts Dies

Mrs. Iley Coleman Potts, 82, of Kosciusko, Miss., mother of T. C. Potts, president of the Crenshaw Oil Co. at Crenshaw, Miss., died at her home July 21. She had been an invalid for two years.

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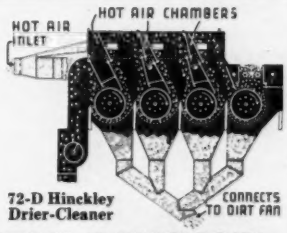

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Brush-Type Harvester Shows Promise in Tests

Brush-type strippers may eventually provide the successful answer to low-cost, completely mechanical harvesting of cotton in the Southwest, the Oklahoma Agricultural Experiment Station has reported.

A harvester of this kind—a new type in the South—is showing considerable promise in current cooperative research at the Oklahoma station.

Cotton is harvested by mechanical pickers, which pluck the cotton from its boll; by strippers, which generally strip the cotton from the plant; or by hand. The stripper has proved the better of the two mechanical methods in handling the short-fibred, small cotton plants grown on the Texas and Oklahoma plains.

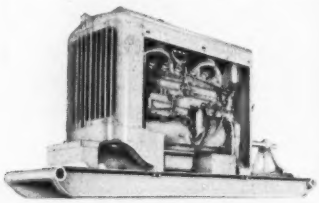
With present-day cotton strippers, the cotton plants are run between mechanical fingers, rolls, or a combination roll and stripping bar. Since stripping is usually done after frost, when many of the plants are brittle, these machines not only strip cotton from the plant, but tend to include parts of the plant branches and stalks, and may even pull the whole plant from the ground, resulting in clogged machines and trashy cotton. Some of the cotton falls back through the strippers and is lost.

The experimental brush stripper substitutes revolving brushes for the fingers or rolls. Because the brushes are pliant, they remove the cotton from the partially dead plants without bits of stem, and at the same time hold any loose cotton that would otherwise fall to the ground.

In comparative tests during the 1949 harvest season, the brush stripper harvested more of the cotton than other types of harvesters tested. More important, it did its work without choking or otherwise failing to operate properly. Air was used to move the stripped cotton through conveyor ducts to the trailer where the cotton was collected.

In 1950, however, after a season of heavy weed growth, heavy boll weevil infestation and a hard freeze that killed all the plants before harvest, the experimental brush-type harvester failed to live up to its 1949 record. Although the brush strippers continued to do excellent work, breaking only small bits of stems from the overly brittle plants, these were enough to clog the ducts of the pneumatic conveyor system. Commercial machines, operating under the same conditions, pulled stalks and broke stems to such an extent that they made little progress in the field.

This year engineers working on the project are developing a mechanical conveyor system for moving the stripped cotton from the strippers to the trailer which they believe will work well even under adverse conditions. In addition, they are continuing their research to determine what fibers are best for use in the brushes and at what speed the brushes should revolve to do their most effective work.



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Harrison to Be Honored For Cotton Work

George J. Harrison, USDA agronomist who is known best as the developer of California's one-variety cotton, Acala 4-42, will be honored during George Harrison Day at Shafter, Calif., some time in September.

The Shafter Chamber of Commerce is planning the celebration, which will coincide with a cotton field day at the U.S. Experimental Farm near Shafter.

May Exports—385,000 Bales

United States cotton exports in May totaled 385,000 bales of 500 pounds gross (371,000 running bales) including 141,000 bales to Italy, 52,000 to Canada, 51,000 to France, 32,000 to Germany, 22,000 to Japan, 17,000 to the Netherlands, 15,000 to Yugoslavia and 14,000 to Austria. The total for Aug.-May 1950-51 amounted to 3,936,000 bales (3,784,000 running bales).

Chemical Treatment Gives Cotton Rot Resistance

Cotton yarn and fabric that resists rot and mildew and is able to stand higher temperatures than ordinary cotton is being produced at USDA's Southern Regional Research Laboratory, New Orleans, La. The new cotton material looks like the regular product but lasts much longer in certain uses. It is made by a process called "partial acetylation." By adapting this process on a pilot-plant scale to the acetylation of cotton fiber, yarn and a variety of fabrics, the laboratory's research marks an important step in efforts to improve and add to cotton's natural qualities.

Rigorous practical tests have shown that partially acetylated cotton sandbags far outlast those made from untreated cotton given standard rotproofing treatments. Partial acetylation is also a promising treatment for fishing gear. Partially acetylated covers for laundry presses resist scorching and charring and are several times more durable than ordinary cotton covers. A number of textile mills are considering the manufacture of these and other partially acetylated cotton products.

The process for producing such products is well adapted for commercial use. It employs glacial acetic acid and acetic anhydride, with perchloric acid as a catalyst, to convert the cellulose in cotton yarn or fabric to a partial acetate. The cotton remains nontoxic and is not changed in appearance. Unlike some processes used to improve cotton's rot resistance, partial acetylation leaves no stickiness, odor or color. It is believed to be the most effective method so far developed to protect cotton from rot-causing micro-organisms and from damage by heat.

Partial acetylation is not basically new (it was reported in England about 1900), but little information on its usefullness was available before 1949, when the laboratory began investigating the process. In early tests, strips of the treated cloth were buried in moist soil near the laboratory in New Orleans. They resisted rotting for six months to a year. Partially acetylated sandbags stacked on damp ground lasted two years. In the same test, sandbags of ordinary cotton treated with copper naphthenate, a standard rotproofing chemical, decayed in two to five months.

One manufacturer has used partial acetylation successfully in treating cotton bags to hold chemicals for home water-softening systems. Under some conditions, regular cotton bags last only a month or two in this equipment, but the treated bags are good for more than a year.

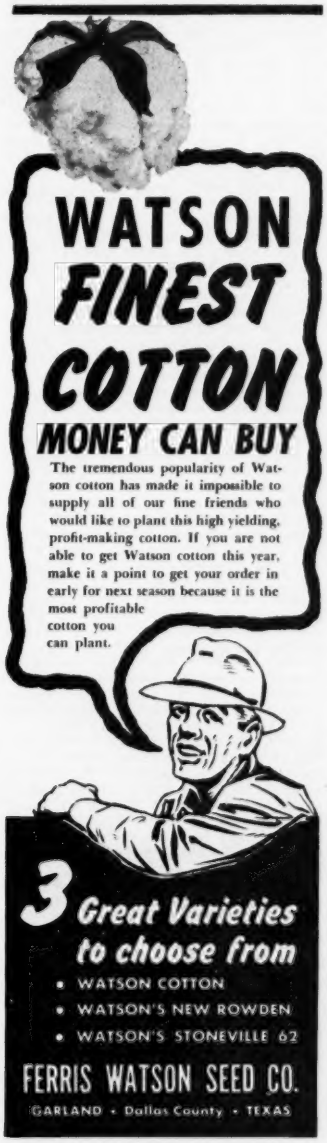
U. K. to Purchase Uruguayan Linseed, Sunflower Oil

The United Kingdom has reached an agreement with Uruguay to purchase linseed oil and sunflower seed oil. The British government expects to purchase 5,000 metric tons (5,500 short tons) of linseed oil at around $448 per metric ton and an additional 10,000 tons later if the price is relatively unchanged.

The British Ministry of Food expects to purchase 10,000 metric tons of semi-refined sunflower seed oil at the f.o.b. price of $644 per metric ton. The Uruguayan Export and Import Control Agency will assign export quotas among crushers in position to ship sunflower oil before Dec. 31.

It is believed that the 10,000-ton figure represents the exportable surplus of oil from the current sunflower crop—unofficially estimated at around 82,500 short tons of seed. Should a record harvest of over 100,000 tons be realized, as many crushers expect, small additional supplies likely will be available for export.

• Eleven percent of the U.S. population depends upon cotton for a livelihood. (Approx. 13,500,000)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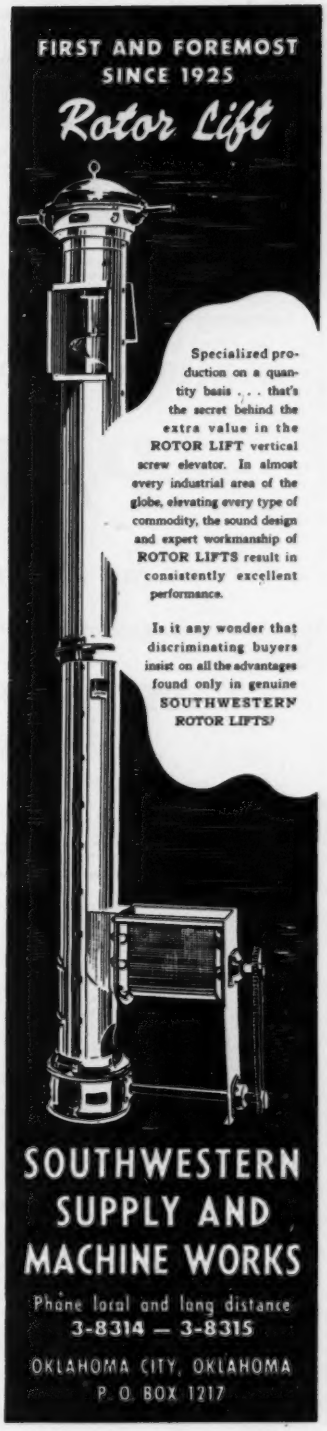
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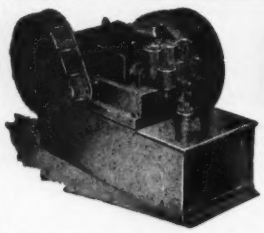

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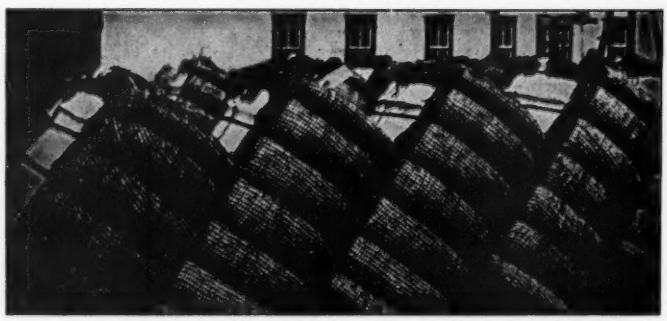

Covered with Carolina's Standard 2-lb. Jute Bagging, cut of bales, above, is actual photograph of same before cutting sample holes.

Cotton so covered is subjected to less weather damage than either closely woven cotton, Burlap, or Sugar Bag Cloth due to open weave admitting sunlight and air, and looks better than either after sample holes are cut, and is unquestionably better for the purpose.

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Record 1951-52 Cotton Acreage in Greece

A preliminary government estimate places the area planted to cotton in Greece for the 1951-52 season at the record-setting total of about 220,000 acres, 15 percent above the 191,000 acres harvested in 1950-51. This expansion of acreage has taken place in large part on unirrigated land, so that the proportion of total cotton area under irrigation has decreased from 41 percent in 1949-50 to an estimated 31 percent in 1951-52.

Growing conditions thus far this season have not been favorable. Cold, wet weather in the north and drought in the south during the planting season were followed by a rather serious insect infestation. It is still too early to forecast the effect these unfavorable factors will have on production. The outlook at present is for lower yields than in 1950-51 but, compensated for by the increase in cotton acreage, the crop should be about equal to that harvested during the current season.

The most recent estimates have placed the 1950-51 crop at 117,000 bales (500 pounds gross weight), 63 percent above the 72,000 bales produced in the preceding season. The quality of the crop was considerably better than in previous years, due to the introduction of additional cleaning equipment at many of the gins, good picking weather and increasing use of improved varieties of seed.

This sizeable increase in production resulted in a sufficient surplus of raw cotton in the country to permit limited exports, the first time this has occurred. All exports were under strict government regulations, however, being sold at auction from government-held stocks, except for 4,600 bales exported to Yugoslavia to meet an urgent need there pending arrival of U.S. cotton. Small quantities, amounting to almost 2,300 bales, were shipped to Spain, Belgium and France, bringing total exports to about 6,900 bales.

Consumption of raw cotton by the textile mills and in the home industries during the first four months of 1951, the latest period for which data are available, amounted to 37,000 bales, an increase of 16 percent over the corresponding period of 1950. Perhaps more significant than this rise in consumption is the fact that only 10 percent of the cotton consumed during the first third of 1951 was imported, while more than 30 percent was imported cotton during the same period last year. Spindles in place are expected to increase 10 percent during 1951 to about 342,000 compared with 311,000 in 1950. This increased capacity may lead to exports of cotton textiles rather than raw cotton in 1951, a change Greece desires.

Stocks of cotton in the hands of farmers and cooperatives have remained extremely high, estimated at more than 55,000 bales, or almost half of the 1950-51 production, on May 1. This slow movement of cotton from the producers is the result of the rigid export controls in effect in Greece which have assured an adequate supply for domestic textile mills. Rather than store the cotton in their warehouses, the mills have preferred to leave the cotton in the country.

• Misuse of electricity causes 70,200 fires in the nation every year.

CALENDAR

Conventions • Meetings • Events

• Aug. 16—National Soybean Processors Association annual meeting. Edgewater Beach Hotel, Chicago, Ill. R. G. Houghtlin, 3818 Board of Trade Bldg., Chicago 4, Ill., president.

• Sept. 6-7-8—American Soybean Association annual convention. Hotel Fort Des Moines, Des Moines, Iowa. George M. Strayer, Hudson, Iowa, secretary-treasurer.

• November 8-9—Fifth Annual Beltwide Cotton Mechanization Conference, Chickasha, Okla. For information, write National Cotton Council, P. O. Box 18, Memphis 1, Tenn., sponsor of the conference.

• March 24-25, 1952 — Valley Oilseed Processors Association annual convention. Hotel Buena Vista, Biloxi, Miss. C. E. Garner, 1024 Exchange Bldg., Memphis 3, Tenn., secretary.

• March 30, 1952—National Cotton Ginners' Association annual meeting. Baker Hotel, Dallas, Texas. Carl Trice Williams, P. O. Box 369, Jackson, Tenn., secretary-treasurer.

• March 31, April 1-2, 1952 — Texas Cotton Ginners' Association annual convention. Fair Park, Dallas, Texas. Jay C. Stilley, 109 North Second Ave., Dallas 1, Texas, executive vice-president. For exhibit space, write R. Haughton, President Gin Machinery & Supply Assn., Inc., P. O. Box 444, 3116 Commerce St., Dallas 1, Texas.

• May 19-20-21, 1952—National Cottonseed Products Association's annual convention. Roosevelt Hotel, New Orleans, La. S. M. Harmon, Sterick Bldg., Memphis 3, Tenn., secretary-treasurer.

• June 3-4-5, 1952—Tri-States Cottonseed Oil Mill Superintendents' Association annual convention. Hotel Buena Vista, Biloxi, Miss. L. E. Roberts, 998 Kansas, Memphis 5, Tenn., secretary-treasurer.

• June 8-9-10-11, 1952—North Carolina Cottonseed Crushers Association - South Carolina Cotton Seed Crushers' Association joint annual convention. The Cavalier, Virginia Beach, Va. Mrs. M. U. Hogue, P. O. Box 747, Raleigh, N. C., secretary-treasurer, North Carolina association; Mrs. Durrett Williams, 609 Palmetto Bldg., Columbia 1, S. C., treasurer, South Carolina association.

Malayan Net Copra Exports Rise in 1950

The Federation of Malaya exported 124,763 long tons of copra and 57,032 tons of coconut oil during 1950. Imports during the year amounted to 119,985 tons of copra and 987 tons of coconut oil. Net exports on a copra-equivalent basis of 93,750 tons represented an increase of nearly one-third from the net figure of 71,600 tons during the previous year.

Copra production during 1950 was reported at 149,478 tons compared with 122,937 tons during 1949. Coconut oil output of 90,470 tons was slightly less than the 90,962-ton output of the year before.

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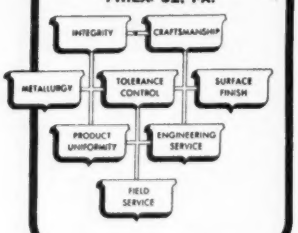

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Confer with us on your storage problems

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Laugh It Off

Have you ever stopped to think what a wonderful thing the human brain is? It never ceases working for you from the time you are born until the moment you stand up to make a speech.

• • •

Some tourists were standing on the edge of Mt. Vesuvius looking at the molten lava. An American remarked to his companion: "Looks hot as hell." An Englishman nearby remarked to his companion: "These Americans have been everywhere."

• • •

The wife was always antagonized by her husband going out at night. His departing words, which especially angered her, were always, "Good night, mother of three."

But one night she could stand it no longer, and when he put his hat on, started out the door, and called cheerily, "Good night, mother of three," she responded, quite as cheerfully, "Good night, father of one."

(Now he stays home.)

• • •

The judge was one of those kind-hearted souls who believed in giving the prisoner the benefit of the doubt. One day an unfortunate young fellow was brought before him. The judge was informed of the charges against the youth. He had stolen 19 bottles of beer.

"Stolen 19 bottles of beer, eh? Well, I'll have to dismiss the prisoner. I can't make a case out of 19 bottles of beer."

• • •

A clergyman was called to the vestibule one Sunday just before the service. There was a young couple who wanted to be married. The pastor explained that there wasn't time then but that at the end of the service he would give them an opportunity to come forward. The couple agreed, and at the proper time the clergyman said: "Will those who wish to be united in the holy bonds of matrimony please come forward?"

There was a stir as fourteen women and one man walked to the altar.

• • •

Sonny: "Is a ton of coal very much?"
Dad: "That depends on whether you're shoveling it or burning it."

• • •

Bessie was talking about her two boy friends: "If I could combine them, I'd be the happiest girl in the world. Ronald is gay and suave and rich and handsome and witty, and Clarence wants to marry me."

• • •

Mother: Well, son, what have you been doing all afternoon?
Son: Shooting craps, mother.
Mother: That must stop. Those little things have just as much right to live as you have.

• • •

The bad bold man: "Why don't you sit on my knee?"

The shy young thing: "Because my mother told me to stay away from joints."

• • •

"Help your wife," says the Good Housekeeping. "When she mops up the floor, mop up the floor with her."

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are salaried men. They receive no sales commissions. Therefore . . . although they always enjoy taking orders . . . their main concern is your best interest and not a sales commission.

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E. R. SMITH
Mitchell Representative for Alabama, Georgia and the Carolinas

With grandfather and father as farmers, merchants and cotton ginners, Ed Smith has been associated with the cotton business all of his life. Born in Sycamore, Georgia in 1900, he received his early education at the public schools there.

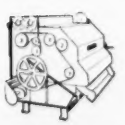
He later attended Marion Military Institute in Marion, Alabama, and spent two years studying mechanical engineering at Georgia Tech in Atlanta.

His early home life proved to be a strong influence in his decision to "go back to the soil," and after leaving Georgia Tech he went to work for a gin machinery company in their engineering and sales departments. After several years with this firm he joined the Mitchell Company in December, 1934.

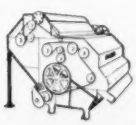
Now serving the southeastern territory, Ed Smith is a man who knows cotton ginning machinery from long experience. He's glad to be of service to any ginner and can be reached at Box 1073 in Columbia, South Carolina, telephone 29084.

Write for Folder

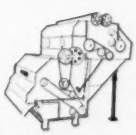
Complete file packet of information on MITCHELL machinery available on request.



CONVERTIBLE MACHINE

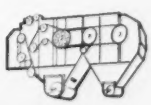


STANDARD UNIT



SUPER UNIT

SUPER JEM



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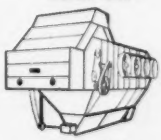

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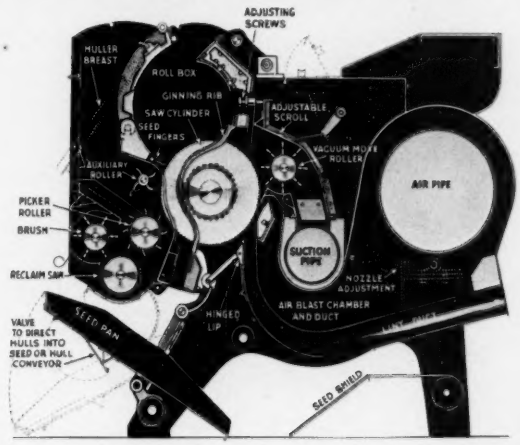

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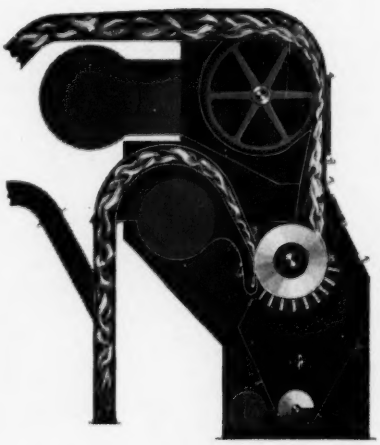

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This Lint Cleaner uses LINE FLOW AIR WASH cleaning process, in addition to oscillating Saws and smooth rigid Grids. This combination effectively removes motes, shale and leaf trash, smooths lint, improves color, and greatly improves the sample. Better grades will secure you

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